DRAFT
INITIAL STUDY / MITIGATED NEGATIVE DECLARATION

SOUTH HUTCHINS STREET ANNEXATION

Lead Agency:
City of Lodi
Community Development Department • Planning Division
City Hall, 221 West Pine Street
P.O. Box 3006
Lodi, CA 95241-1910
(209)333-6711
(209)333-6842 (Fax)
www.lodi.gov

DRAFT
INITIAL STUDY / MITIGATED NEGATIVE DECLARATION

SOUTH HUTCHINS STREET ANNEXATION

November 2010

Lead Agency:
City of Lodi
Community Development Department • Planning Division
City Hall, 221 West Pine Street
P.O. Box 3006
Lodi, CA 95241-1910
(209)333-6711
(209)333-6842 (Fax)
www.lodi.gov

TABLE OF CONTENTS

Section 1: Introduction 8
1.1 - Purpose 8
1.2 - Project Location 9
1.3 - Project Description 9
1.4 – Site Characterstics 16
1.5 – Topography. 16
1.6 – On-Site Land Uses Cover. 16
1.7 – Surrounding Land Uses. 16
1.8 – Existing General Plan Land Use and Zoning Designation 16
1.9 – Project Objectives. 17
1.10 – Development Characterstics. 17
1.11 – Traffic and Pedestrian Circulation and Parking 18
1.12 – Infrastrucutre 20
1.13 – Public Actions and Approvals Required. 21
1.14 – Construcution Schedule 21

Section 2: Environmental Determination 24

Section 3: Discussion of Environmental Evaluation 26
1. Aesthetics 26
2. Agricultural Resources 34
3. Air Quality 46
4. Greenhouse Gas Emissions 60
5. Biological Resources 66
6. Cultural Resources 80
7. Geology and Soils 88
8. Hazards and Hazardous Materials 98
9. Hydrology and Water Quality 106
10. Land Use and Planning 116
11. Mineral Resources 126
12. Noise 128
13. Population and Housing 140
14. Public Services 144
15. Recreation 150
16. Transportation/Traffic 156
17. Utilities and Service Systems 174
18. Mandatory Findings of Significance 186

Section 4 Mitigation Measures ..... Error! Bookmark not defined.

Section 5 References ..... Error! Bookmark not defined.

Section 6: Appnedix 204
A. Notice of Availability
B. Cultural Resources Assessment
C. Biological Resources Assessment
D. Geotechnical Report

E. Environmental Site Assessment Phase I
F. Water Supply Assessment

LIST OF FIGURES

Exhibit 1 - Regional Map
Exhibit 2 - Site Location Aerial Map
Exhibit 3 - Site Plan

Exhibit 1.1 - Proposed Elevations
Exhibit 2-1 - San Joaquin County Important Farmland Map 2006
Exhibit 3.1 – Sensitive Receptors Map
Exhibit 7 - Regional Faults
Exhibit 8 - Potential Hazardous Material Sites
Exhibit 10 – Development Phases
Exhibit 14 – Fire Stations and Police Department Locations
Exhibit 15 - City Existing and Proposed Parks and open spaces.
Exhibit 16.1- General Plan Roadway System
Exhibit 16.2 –Traffic Circulation Master Plan
Exhibit 16.3 - City of Lodi Transit System
Exhibit 16.4 - City of General Plan Bicycle System
Figure 17.1 – Proposed Conceptual Storm Drain Plan
Figure 17.2 – City's Stormwater System Plan

SECTION 1:
INTRODUCTION
1.1 - PURPOSE

The California Environmental Quality Act (CEQA) requires that public agencies document and consider the potential environmental effects of any agency actions that meet CEQA's definition of a "Project;" briefly summarized, a "Project" is an action that has the potential to result in direct or indirect physical changes in the environment. A Project includes the agency's direct activities as well as activities that involve public agency approvals or funding. Guidelines for an agency's implementation of CEQA are found in the "CEQA Guidelines" (Title 14, Chapter 3 of the California Code of Regulations).

Provided that a Project is not found to be exempt from CEQA, the first step in the agency's evaluation of the potential environmental effects of the Project is the preparation of an Initial Study. The purpose of an Initial Study is to determine whether the Project would involve "significant" environmental effects as defined by CEQA and to describe feasible mitigation measures that would be necessary to avoid the significant effects or reduce them to a less than significant level. In the event that the Initial Study does not identify significant effects, or identifies mitigation measures that would reduce all of the significant effects of the Project to a less than significant level, the agency may prepare a Negative Declaration. If this is not the case, the agency must prepare an Environmental Impact Report (EIR); the agency may also decide to proceed directly with the preparation of an EIR without preparation of an Initial Study.

The purpose of this Initial Study and Proposed Mitigated Negative Declaration (IS/MND) is to identify the potential environmental impacts and proposed mitigation measures associated with the proposed South Hutchins Street Annexation Project. The Project proposes a retail center, a restaurant, and an office park with infrastructure required to support future development of the site. In total, implementation of the proposed Project would result in the development of up to 103,350 square feet of commercial/retail use, including a 5,000 square foot bank, 6,400 square feet of restaurant space, and 111,200 square feet of office space, including a 65,000 square foot medical office building with a laboratory (3,000 square feet).

Pursuant to Section 15367 of the CEQA Guidelines, the City is the Lead Agency in the preparation of this IS/MND, and any additional environmental documentation required for the Project. The City has responsibility for approval or denial of the Project application. The intended use of this document is to provide information to support conclusions regarding the potential environmental impacts of the Project. The IS/MND provides the basis for input from public agencies, organizations, and interested members of the public.

The remainder of this section provides a brief description of the Project location and the characteristics of the Project. Section 3 includes an environmental checklist giving an overview of the potential impacts that may result from Project implementation. This section also elaborates on the information contained in the environmental checklist, along with justification for the responses provided in the environmental checklist. Section 4 lists the mitigation measures. Section 5 provides list of documents used. The last section is an appendix which includes all the technical studies incorporated into the preparation of this document.

1.2 - PROJECT LOCATION

The Project site is located adjacent to the southern boundary of the City of Lodi in San Joaquin County, as shown on Figure 1, Regional Location Map. The 30-acre Project site is bound by Harney Lane to the north, West Lane to the east, and agricultural fields to the south and west. The Project's southern boundary lies approximately 1,025 feet to the south of Harney Lane while the Project's western boundary lies about 1,230 feet to the west of the West Lane.

The Project site is located within the southwest portion of the City of Lodi Planning Area, immediately south of the City's southern boundary (along Harney Lane) and west of State Route (SR) 99. The Project site is located in northern San Joaquin County, in the northern portion of California's Central Valley. Geographically, the Project site lies between the Sierra Nevada Mountains to the east and San Francisco Bay to the west. From a regional perspective, the Project site is located approximately 34 miles south of Sacramento, 6.5 miles north of Stockton, and 90 miles east of San Francisco.

Regional access is provided by SR 99 and Interstate 5 (I-5). SR 99 runs north-south approximately one mile to the east of the Project site, and Interstate 5 (I-5) runs north-south about seven miles to the west. Other major roadways in the area include SR 12, an east-west roadway facility serving as a link between the Sierra Nevada Mountains to the east and the Bay area communities to the west.

1.3 - PROJECT DESCRIPTION

The Project proposes a retail center, a restaurant, and an office park with infrastructure required to support future development of the site. Implementation of the proposed Project would result in the development of up to 103,350 square feet of commercial/retail use, including a 5,000 square foot bank, 6,400 square feet of restaurant space, and 179,200 square feet of office space, including a 68,000 square foot medical office building with a laboratory (3,000 square feet).

The proposed Project would also provide a total of 1,501 parking spaces, 147 more parking spaces than is required by the parking regulations set forth in the Lodi Municipal Code. Of these spaces, 517 stalls would be provided for the retail component, 80 stalls would be provided for the restaurant component, and 904 stalls would be provided for the office component.

Exhibit 1 shows the regional location of the City of Lodi, and Exhibit 2 illustrates the location and boundaries of the Project site. Exhibit 3, Site Plan, displays the conceptual site plan for the Project, and Table 1 identifies the component land uses and parking.

Exhibit 1: Regional Location Map

Blank Page

Exhibit 2: Site Location Map

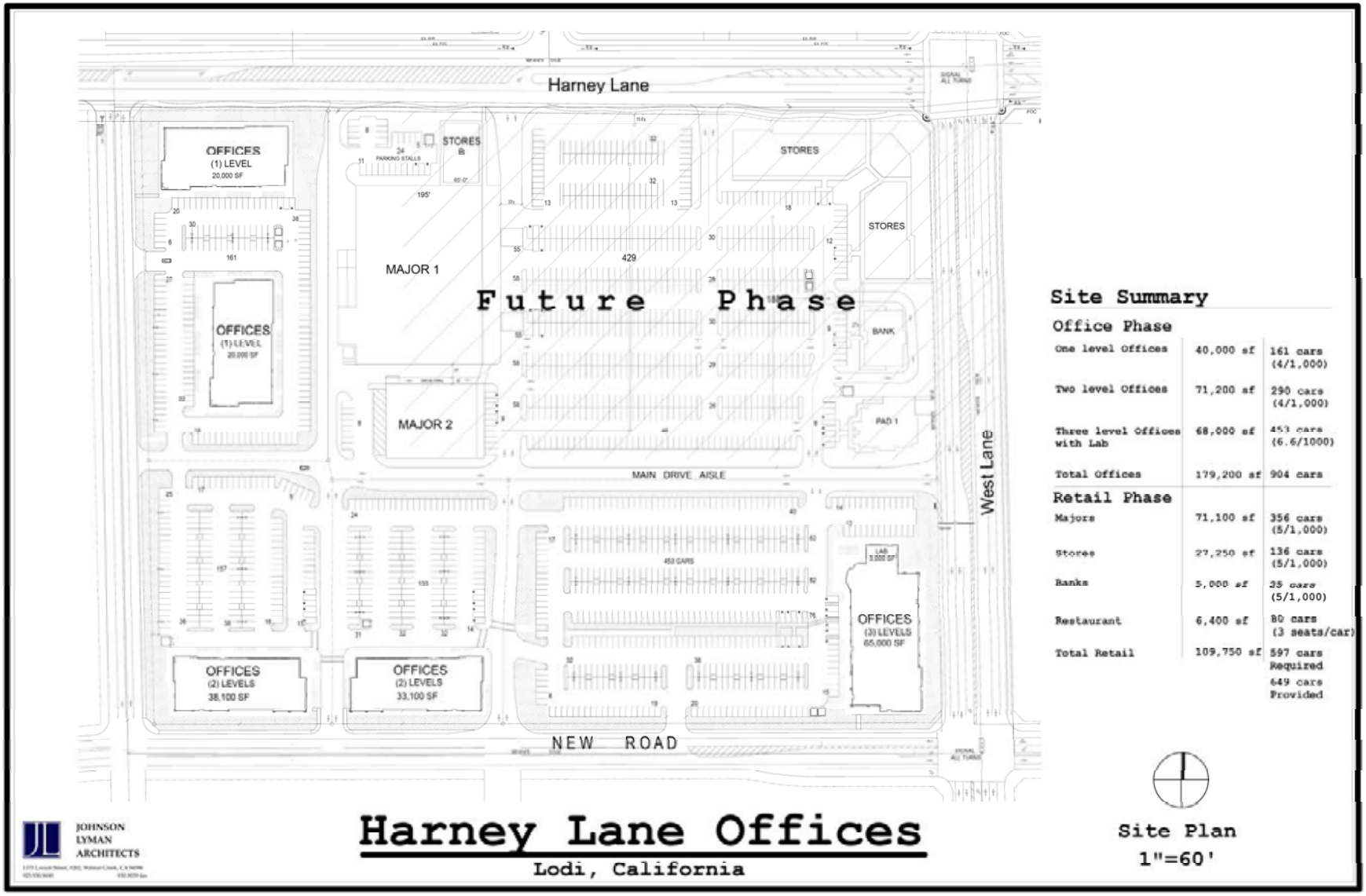


Exhibit 3: Proposed Site Plan

Blank Page

1.4 - SITE CHARACTERISTICS

The Project site consists of one (1) parcel covering a total of approximately 30 acres (Assessors Parcel Number 058-100-03). Principal vehicular access to the site is provided along Harney Lane while regional access is provided via SR 99. An existing private drive extending south from Harney lane serves as vehicle access to an abandoned golf driving range. Other unpaved access roads occur throughout the site principally to serve existing agricultural operations on the eastern portion of the property.

1. 5 - TOPOGRAPHY

The Project site is located in the southern Sacramento Valley portion of California's Central Valley. The topography of this region is flat. Elevations range from 40 to 50 feet above mean sea level. As is normally the case with regard to agricultural lands, topography of the site is nearly flat, and it does not contain any distinct topographic features.

1.6 - ON-SITE LAND USES COVER

The existing on-site uses include a strawberry field (15 acres) planted seasonally on the eastern half of the Project site and an abandoned golf driving range (15 acres) on the western half of the Project site. Existing structures on the Project site include a strawberry stand on the northeastern corner. In addition, there are two temporary storage containers placed onsite. The abandoned golf driving range (15 acres) previously contained pavement and 'club house', which have been removed as of May of 2009.

1.7 - SURROUNDING LAND USES

The Project site is located on the southern edge of the City of Lodi with residential and commercial uses to the north and agricultural operations to the south, east, and west. The existing agricultural uses are the prominent and distinguishing land uses in the Project area. The land uses to the north of the Project site include medium-residential and neighborhood commercial uses. In addition, the site of the Reynolds Ranch Project, a 220 mixed-use development consisting of retail, office and residential uses is located approximately ½ a mile to the east of the proposed Project and is expected to be built out by 2030.

1.8 - EXISTING GENERAL PLAN LAND USE AND ZONING DESIGNATIONS

While the Project site is located outside the City of Lodi's jurisdictional boundary, it is within the City's Sphere of Influence. The Project site has been given a land use designation in the City's General Plan, and the goals and policies of the General Plan are applicable. The current General Plan designation for the Project site is Commercial. The Commercial designation permits restaurants, professional offices, medical offices, retail stores and other similar uses. It prohibits manufacturing and industrial uses.

Currently allowed uses and development standards are those associated with the County's present zoning designation of AG (General Agriculture) – 40 acres and the County's existing general plan land use designation of General Agriculture (A/G). Upon annexation, those uses would be permitted until construction commences. However, the proposed Project includes prezoning the property to a City of Lodi zoning district and an annexation to the

City. As noted below, it is anticipated that construction of the proposed Project would begin in late 2011 upon completion of entitlement, annexation and building permit approvals.

1.9 – PROJECT OBJECTIVES

The applicant's Project objectives are as follows:

- To bring state of the art medical services and opportunities to the City of Lodi.
- Provide for office, retail, and potential restaurant uses to serve new and existing residential development in the southern portion of the City.
- Promote the development of local high quality medical facilities within the City of Lodi.
- Foster economic and employment opportunities within the City through the strengthening of the City's Jobs to Housing ratio.
- Provide necessary circulation and infrastructure improvements associated with development of the site.
- Promote site design and building orientation that is compatible with adjacent uses.
- Be designed to be a benchmark of a family-centered, safe and healthy experience for patients, families and staff, set in a healing and sustainable environment.

1.10 DEVELOPMENT CHARACTERISTICS

Office

The 179,200-sf office component of the proposed Project would consist of both standard and medical office uses. Based on an average of 4.44 employees per 1,000 sq. ft., the office component of the proposed Project would generate approximately 796 employees.

Retail

The 103,350-sf retail component of the proposed Project would consist of two major retailers, smaller neighborhood retail uses, such as cleaners, and a bank. Based on an average of three employees per 1,000 sq. ft., the retail component of the proposed Project would generate approximately 310 employees.

Restaurant

The 6,400-sf retail component of the proposed Project would most likely consist of a fast food restaurant. Based on an average of three employees per 1,000 sq. ft., the restaurant component of the proposed Project would generate approximately 19 employees.

1.11 - TRAFFIC AND PEDESTRIAN CIRCULATION AND PARKING

Roadways
As shown in Exhibit 3 on Page 12, implementation of the proposed Project would involve the construction of two street segments that would extend along the Project site's western and southern boundaries. In addition, a signal would be installed at the intersection of the proposed southern roadway and West Lane.

Internal site access would be provided via several driveways: three on Harney Lane, one on West Lane, three on the proposed east-west road along the Project site's southern border and two on the proposed north-south road along the Project site's western border. The three driveways on Harney lane would consist of 1) a right-out only truck exit driveway; 2) a right-in, left-in, and right-out driveway; and 3) a right-in, right-out driveway. The driveway along West Lane would consist of a right-in, right-out driveway. The driveways along the new road to the west would have no movement restrictions. Two driveways along the new road to the south would also have no movement restrictions, and the most easterly driveway would be right-in, left-in, and right-out only.

Pedestrian and Bicycle Circulation
The above-described roadways would provide access to the Project site and its associated land uses. Bicycle lanes conforming to City of Lodi standards would be provided in the adjacent public streets. The main pedestrian entrance for the Project site would be located through a proposed plaza at the corner of Harney Lane and West Lane. Patrons and employees would utilize proposed sidewalks and a proposed pedestrian crossing at the intersection to reach the plaza.

Transit Services
Transit Service is provided by the Lodi Grapevine, San Joaquin Regional Transit District (RTD), and South County Transit (SCT/LINK). The Lodi Grapevine provides local transit service within the city while the RTD and SCT/Link provide inter-city service. The nearest service for the Lodi Grapevine is the northwest corner of Hutchins Street and Wimbledon Drive, located one block north of the Project site. This route makes a stop at the Lodi Transit Center (Lodi Station), which provides a connection to the greater Sacramento-San Joaquin region via RTD routes serving Manteca, Lathrop, Tracy and Stockton and SCT/LINK routes serving Galt, Elk Grove and Sacramento. The Lodi Station also provides statewide access via Amtrak long distance trains and Greyhound bus service. The Lodi Station is located approximately two miles north of the Project site in downtown Lodi. It should be noted that the Project site is within the scope of a transit study currently being prepared by the City.

Parking

The proposed Project will provide a total of 1,501 parking spaces. Of these spaces, 517 stalls would be provided for the retail component, 80 stalls would be provided for the restaurant component, and 904 stalls would be provided for the office component.

Land Uses	*Area (sq .ft.)*	*Parking Spaces*		
		Proposed	*Required*[1]	*Difference*
Retail				
Major retail store	71,100		356[2]	
Smaller accessory commercial stores	27,250	517	136[2]	8
Bank	5,000		17[3]	
Total	***103,350***	***517***	***509***	***8***
Restaurant				
Restaurant	6,400 (240 seats)	80	60[4]	20
Total	***6,400***	***80***	***60***	***20***
Office				
Office	111,200	451	445[5]	6
Medical Office with laboratory	68,000	453	340[6]	113
Total	***179,200***	***904***	***785***	***119***
Overall Total	***288,950***	***1,501***	***1,354***	***147***

SOURCE: John Lyman Architects, 2008

1. Lodi Municipal Code 17.60.100
2. General Commercial - 1 space per 500 square feet.
3. Banks – 1 space per 300 square feet.
4. Restaurants - 1 space per 4 seats
5. Business and Professional – 1 space per 250 square feet.
6. Medical Office – 1 space per 200 square feet.

Table 1: Parking Spaces Distribution

1.12 – INFRASTRUCTURE

Water

The City of Lodi would provide water service to the Project site. Water supplies would be provided by network of municipal wells and the planned Surface Water Treatment Plant that will treat Woodbridge Irrigation District (WID) water purchased by the City. The Project site does not currently have water conveyance infrastructure connected to the City water supply system. As part of the Project, the proposed Project would install water pipelines as dictated by a water master plan that is currently being prepared by City staff. The master plan will show water pipelines larger than six (6) inches, including transmission mains and utility corridors. Water main alignments would be established from Harney Lane to approximately 2,600 feet south of Harney Lane between the Woodbridge Irrigation District (WID) canal on the west and the UPRR railroad on the east.

Sewer

The City of Lodi would provide wastewater service to the Project site. The Project site is located in the Harney Lane Lift Station Service Area. Currently, there is a 15-inch wastewater main located west of the WID canal. The wastewater main would be extended easterly under the WID canal in Harney Lane to serve the proposed Project in conformance with Alternative D of the South Lodi Sanitary Sewer Study for "The Harney Lane Lift Station Service Area" prepared by Kjeldson-Sinnock & Associates and dated July, 1992. It should be noted that as part of a wastewater master plan that is being prepared by the City, wastewater main alignments will be established from Harney Lane to approximately 2,600 feet south of Harney Lane between the WID canal on the west and the UPRR railroad on the east. Any modifications to the Harney Lane Lift Station, which would be required to serve the Project in conformance with the "Agreement" dated November 19, 1992, between the City of Lodi and the owners of various properties, including the Project site, south of Harney Lane, would be carried out by the applicant.

Drainage

The City of Lodi operates the storm drainage system in the vicinity of the Project site, however the City's current systems does not serve the Project site at this time. As part of the proposed Project, a storm drainage master plan to serve the drainage area from Harney Lane to approximately 2,600 feet south of Harney Lane between the WID canal on the west and the UPRR railroad on the east will be developed by City staff. The master plan will show storm drainage pipelines and the location of a future permanent storm drainage basin to serve the drainage area. It is anticipated that the permanent storm drainage basin would be located in the southwest portion of the drainage area adjacent to the WID canal. The basin would discharge into the canal via a metered outfall. WID and the City of Lodi have a long established agreement that provides for the discharge of storm runoff into the WID canal system. Under the existing agreement, the City is allowed three discharge stations and currently has two in operation.

Since the permanent storm drainage basin would not be constructed with the Project, an interim storm water plan would be provided as part of the Project to serve the Project site

until the permanent facilities are constructed. The interim plan would include a temporary storm water retention basin for a 48-hour 100 year storm event on the Project site that would retain all storm drainage from the Project. This facility would be designed, constructed and maintained by the applicant in conformance with City of Lodi design standards and would be removed when the permanent storm drainage basin is constructed.

1.13 - PUBLIC ACTIONS AND APPROVALS REQUIRED

This Environmental Impact Report will be used by the following jurisdictions and agencies when deciding whether to grant the following discretionary actions:

- City of Lodi: Annexation/Pre-Zone Change/Tentative Parcel Map and Site Plan and Architecture Review and Approval
- City of Lodi: Development Plan and Infrastructure Master Plan approval
- LAFCO: Annexation approval (Municipal Plan of Services, County of San Joaquin Detachment, etc.)

In addition to the City of Lodi, there may also be local, state, and federal responsible agencies that have discretionary or appellate authority over specific aspects of the proposed Project.

1.14 - CONSTRUCTION SCHEDULE

The proposed Project would be developed in three phases over a period of approximately ten years. Phase I would consist of the medical office building, which would be constructed over a period of 12 months beginning in late 2011. Phase II would involve development of the retail portion of the proposed Project with 18 months of construction starting in December 2013. Phase III would consist of the construction of the remaining portions of the site (non-medical office uses) and involve 12 months of construction activities beginning in December 2016.

PROJECT TITLE: South Hutchins Annexation Project	**REFERENCE APPLICATION NUMBERS:** 10-MND-06
LEAD AGENCY: City of Lodi Community Development Department City Hall, 221 West Pine Street P.O. Box 3006 Lodi, CA 95241-1910	**CONTACT PERSON AND TELEPHONE NO.:** Immanuel Bereket Associate Planner (209)333-6711
PROJECT PROPONENT AND ADDRESS: Michael Carouba P.O. Box 1066 Woodbridge, CA 95258	
GENERAL PLAN DESIGNATION: Commercial (City of Lodi) General Agriculture (A/G)	**CITY ZONING DESIGNATION:** AG (General Agriculture) – 40 acres (San Joaquin County)
OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED No other public agencies are required to approve the proposed development Project. However, it should be noted that a variety of funding sources are to be used to fund the proposed development, including Community Development Block Grant funds.	
EARLIER ANALYSES. Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or Negative Declaration. Section 15063(c)(3)(D). In this case a discussion should identify the following items:	
a) **Earlier analysis used.** Identify earlier analyses and state where they are available for review. b) **Impacts adequately addressed.** Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis. c) **Mitigation measures.** For effects that are "Less than Significant with Mitigation Incorporated," describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions of the Project.	

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐	Aesthetics	☒	Agriculture Resources	☒	Air Quality
☒	Biological Resources	☐	Cultural Resources	☐	Geology/Soils
☐	Hazards & Hazardous Materials	☒	Hydrology/Water Quality	☒	Land Use/Planning

☐	Mineral Resources	☒	Noise	☐	Population/Housing
☒	Public Services	☐	Recreation	☒	Transportation/Traffic
☒	Utilities/Service Systems	☐	Mandatory Findings of Significance		

ENVIRONMENTAL EFFECTS/INITIAL STUDY CHECKLIST

This section documents the screening process used to identify and focus upon environmental impacts that could result from this Project. The Initial Study Checklist below follows closely the form prepared by the Governor's Office of Planning and Research and was used in conjunction with the City's *CEQA Thresholds Guide* and other sources to screen and focus upon potential environmental impacts resulting from this Project. Impacts are separated into the following categories:

No Impact. This category applies when a Project would not create an impact in the specific environmental issue area. A "No Impact" finding does not require an explanation when the finding is adequately supported by the cited information sources (e.g., exposure to a tsunami is clearly not a risk for Projects not near the coast). A finding of "No Impact" is explained where the finding is based on Project-specific factors as well as general standards (e.g., the Project will not expose sensitive receptors to pollutants, based on a Project-specific screening analysis).

Less Than Significant Impact. This category is identified when the Project would result in impacts below the threshold of significance, and would therefore be less than significant impacts.

Less Than Significant After Mitigation. This category applies where the incorporation of mitigation measures would reduce a "Potentially Significant Impact" to a "Less Than Significant Impact." The mitigation measures are described briefly along with a brief explanation of how they would reduce the effect to a less than significant level. Mitigation measures from earlier analyses may be incorporated by reference. There are no such impacts for the proposed Project.

Potentially Significant Impact. This category is applicable if there is substantial evidence that a significant adverse effect might occur, and no feasible mitigation measures could be identified to reduce impacts to a less than significant level. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required. There are no such impacts for the proposed Project.

SECTION 2
ENVIRONMENTAL DETERMINATION

Sources of information that adequately support findings of no impact are referenced following each question. All sources so referenced are available for review at the offices of the Community Development Department, Planning Division, 221 West Pine Street, Lodi, California 95241. Answers to other questions (as well as answers of "no impact" that need further explanation) are discussed following each question.

DETERMINATION

On the basis of this initial evaluation:

- ☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

- ■ I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.

- ☐ I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

- ☐ I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

- ☐ I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR OR NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Project Planner — Date: 11/18/2010

Community Development Director — Date: 11-19-20

Blank Page

SECTION 3
DISCUSSION OF ENVIRONMENTAL EVALUATION

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
1.	**AESTHETICS .** *Would the Project:*				
	a. Have a substantial adverse effect on a scenic vista?	☐	☐	■	☐
	b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	■
	c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	■	☐	☐
	d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	■	☐

Regulatory Setting

State of California

The California Environmental Quality Act (CEQA) establishes that it is the policy of the state to take all action necessary to provide the people of the state "with…enjoyment of aesthetic, natural, scenic and historic environmental qualities." {California Public Resources Code Section 210001[b[). California designates state scenic highways where roadways pass through particular scenic landscapes. (http://www.dot.ca.gov/hq/LandArch/scenic/schwy.htm).

U.S. Department of Transportation, Federal Highway Administration

The National Scenic Byways Program is part of the U.S. Department of Transportation, Federal Highway Administration. Established in Title 23, Section 162 of the United States Code under the Intermodal Surface Transportation Efficiency Act of 1991 and reauthorized and expanded significantly in 1998 under TEA-21 and again under SAFETEA-LU in 2005. All roads nationally designated are considered part of America's Byways collection and must possess at least one of these six intrinsic qualities: historic, cultural, natural, scenic, recreational, and/or archaeological. To receive an All-American Road designation, a road must possess multiple intrinsic qualities that are nationally significant and contain one-of-a-kind features that do not exist elsewhere. The road must also be considered a "destination unto itself," and must provide an exceptional travel experience. (http://www.scenic.org/byways).

Visual Distance Zones

The following distance zones (foreground, middle ground, and background) can be used to characterize the dominant visual character from each vantage point and describe views in terms that can be analyzed and compared. The sensitivity of views, which have been modified from the existing environment are defined in order to establish thresholds

for the analysis of potential visual impacts resulting from the implementation of the proposed Project.

Foreground Views. These views include elements that can be seen at a close distance and that dominate the entire view. Impacted views at this distance are generally considered potentially adverse when viewed by a sensitive viewer group, such as surrounding residents, workers, pedestrians, or regular motorists.

Middle Ground Views. These views include elements that can be seen at a middle distance and that partially dominate the view. Impacted views at this distance are generally considered potentially adverse when viewed by a sensitive viewer group.

Background Views. These views include elements that are seen at a long distance and typically do not dominate the view although they are part of the overall visual composition of the view. Impacted views at this distance are generally not considered as an adverse impact when viewed by a sensitive viewer group.

City of Lodi

The City of Lodi General Plan identifies no scenic vistas existing in the Project area and none exist none exist on the properties immediately adjacent to the Project area.

Visual Existing Conditions

As illustrated in Figure 2, Site Location, the eastern half of the Project site is presently utilized for agricultural production while the western half of the Project site is occupied by an abandoned golf driving range. Structures on the Project site include a small fruit stand located at the corner of Harney Lane and West Lane on the agricultural side, and a paved parking lot and club house located along Harney Lane on the golf driving range side.

Uses surrounding the Project site include medium-density residential and neighborhood commercial uses to the north and agricultural land to the east, south, and west. The site of the Reynolds Ranch Project, a 220-acre mixed-use development consisting of retail, office, and residential uses that was recently approved by the City of Lodi, is located to the east of the proposed Project.

<u>Standards of Significance.</u>

The following standards of significance are used to assess potential environmental impacts related to view obstruction, aesthetics, and light and glare.

- Be incompatible with the scale or visual character of the surrounding area;
- Eliminate or substantially alter significant visual features, view corridors or public vista points;
- Result in substantial alteration of natural landforms; and
- Create significant new sources of light and glare in the Project vicinity.

Impact Discussion

a) Have a substantial adverse effect on a scenic vista?

Less Than Significant. Determination of significance for potential impacts to visual resources is based primarily on the level of visual sensitivity in an area. A scenic vista generally provides focal views of objects, settings, or features of visual interest or panoramic views of large geographic areas of scenic quality, primarily from a given vantage point. A significant impact may occur if the proposed Project introduces incompatible visual elements within a field of view containing a scenic vista or substantially alters a view of a scenic vista. In general, an impact to a visual resource would be significant if implementation of a proposed action would result in substantial alterations to an existing sensitive visual setting. The existing site is vacant land partially used for agricultural purposes and the remainder of the site constitutes an abandoned golf range.

The proposed annexation and pre-zoning would not change the visual character of the property. However, subsequent development of the Project with medical offices, a restaurant, and shopping stores of various sizes would change the character from its current undeveloped status to urban development similar to the surrounding developed area to the north. This would constitute significant change but would not alter any scenic vista in the area. As described in *Regulatory Settings* section above, there are no recorded or known scenic vista in the area.

The San Joaquin County General Plan and the City of Lodi General Plan do not designate specific areas within the Project site as scenic vistas. The Project site can be described as a vacant lot located in a relatively flat area, which is a primary factor to why the views of and from the site are limited. The proposed Project designs building heights to City Standards including height, FAR, parking spaces, landscape and etc. While the character would change, it would not have a substantial effect on scenic vistas, scenic resources nor degrade the character or quality of the site. Because there are no significant views of or from the Project site nor is the site located adjacent to a scenic vistas, implementation of the proposed Project would not result in a substantial adverse effect on a scenic vista and, therefore, less than significant impact would occur.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The Project site is not located near a designated State Scenic Highway. No state scenic highways are present in the City at this time and none of the local roads within the Project area have been designated as scenic. The Project site is not located along a state-designated scenic highway nor is it readily visible from such a roadway. No trees, rock outcroppings or historic buildings are located on the Project site. The proposed Project would remove a number of small trees and shrubs onsite to accommodate the proposed Project. Removal of vegetation is discussed in the Biological Resources section of this Initial Study. Therefore, no impact would result associated with scenic resources visible from a designated scenic highway.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less than Significant with Mitigation. The Project site is agricultural land with the exception of small slabs concrete area on the western portion site, which was formerly used a golf range. In its current condition, the Project site is not contributing to the visual character of the area. The proposed Project would develop modern buildings, landscaping, parking areas, and internal walkways and road system. The Project would improve the visual characteristics of the abandoned golf range, which is covered with shrubs and overgrown weeds. The proposed Project would be required to conform to all applicable City Standards and requirements, including those pertaining to set backs, building heights, and landscaping. Mitigation Measures AES-1 and AES-2 are proposed to assess compliance with the provisions of this code. The combination of the Project's design features and compliance with the City's Zoning Code, to the extent feasible, would ensure that impacts to the visual character of the area would be less than significant.

MITIGATION MEASURES AES:

1. Pursuant to Chapter 17.81 of the Lodi Municipal Code, the applicant shall submit detailed site plan and architectural elevations for review and approval by the City of Lodi Planning Commission. The said plans shall illustrate the design details and make specific reference to those features that meet the provisions of Chapter 17.33 Planed Development District (PD) including, but not limited, to the following:
   i. A building height of no more than sixty (60) feet or three (3) stories in height. Exceptions can be made for structures such as towers, spires, cupolas, chimneys, flagpoles, monuments, scenery lofts, and other similar structures and necessary mechanical appurtenances covering not more than 10 percent of the ground area covered by the structures and extending no more than 25 feet above the height limit prescribed by the regulations for the district in which the site is located.
   ii. All mechanical equipment, including all roof mounted equipment such as satellite dishes or any other communications devices, shall be fully screened from ground-level view within 150 feet of the property, from public and private property, including developed or undeveloped properties. *Exceptional shall be made for solar equipments.*
   iii. Ground mounted mechanical equipment shall be screened by walls and fencing or landscaping.
   iv. Outdoor refuse containers shall be located in trash enclosures, shall be subject to design review, and shall comply with the following standards:
      a. Trash enclosures storing containers with a cumulative capacity of one cubic yard to more shall be constructed with decorative masonry walls with solid metal doors. The exterior shall be compatible with the design of the main building.
      b. A minimum 8 ft-by-10 ft -wide thickened concrete paving section shall be provided in from the enclosure gates.
2. The applicant shall submit a detailed landscaping plan to the Community Development Department for review and approval and make specific reference to those landscaping details that meet the provisions of the City of Lodi Public Works Department requirements including but not limited to the following:

i. A minimum of 10 ft of landscaping area shall be provided along Harney Lane and West Lane street frontages and a minimum of 8 ft of landscaping area shall be provided along the new roads.

ii. The Project shall provide 1 shade tree for each 4 parking spaces, which must be planted within the parking lot end stall islands, tree wells, and perimeters planters to maximize shade on the paved areas. This is in addition to the open space tree requirements.

iii. A landscape plan shall be submitted and implemented which demonstrates that 50 percent of the parking lot will be shaded within 10 years.

iv. All landscaped areas adjoining parking and drive area(s) are to bordered by a 6-inch continuous vertical concrete curbing.

d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Less than Significant with Mitigation. The proposed Project would constructing one to three story buildings, associated parking, and other site improvements. Exterior building and parking lot lighting would introduce new sources of light to the area and glare from sun reflecting off building windows and parked cars. Light and glare from the proposed Project would be similar to the light and glare of the surrounding area and would not pose a significant impact to existing commercial and retail uses; however, nighttime lighting could be perceived as a potential impact to surrounding residential development. The lighting is expected to be in the form of street lighting, parking lot lighting and commercial signage and other low-level lighting, such as security lighting and landscape lighting. The proposed development would be required to comply with the requirements relating to lighting and glare contained in Chapter 17 of the Lodi Municipal Code. § 9.18.100. The following mitigation measures required to reduce impacts associated with lighting would be less than significant with proper incorporation of the following mitigation measures.

MITIGATION MEASURES AES:

3. The applicant shall submit site lighting plan to the Community Development Department as part of a SPARC application for review and approval. The said plan shall include, but not be limited to, the following design features:

i. Full-cutoff lighting fixtures to direct lighting to the specific location intended for illumination (e.g., roads, walkways, or parking lot) and to minimize stray light spillover into adjacent residential areas, sensitive biological habitat, and other light sensitive receptors;

ii. Appropriate intensity of lighting to provide safety and security while minimizing light pollution and energy consumption; and shielding of direct lighting within parking areas, sensitive biological habitat, and other light-sensitive receptors through site configuration, grading, lighting design, or barriers such as earthen berms, walls, or landscaping.

iii. A photometric exterior lighting plan and fixture specification shall be submitted for review and approval of the Community development Director. Said plans and specification shall address the following:

a. The plans shall demonstrate that lighting fixtures on the building and grounds shall be designed and installed so as to contain light on the subject property and not spill over onto adjacent private properties or public rights-of-way.

b. The equivalent of one (1) foot-candle of illumination shall be maintained throughout the parking area.

c. All parking light fixtures shall be a maximum of twenty-five 25 feet in height.

d. All fixtures shall be consistent throughout the center.

FINDINGS

The Project would not result in significant aesthetic impacts with implementation of the above mitigation measures.

Sources

City of Lodi. *Lodi General Plan.* Prepared by Dytte & Bhatia, Inc. April 2010.

California, State of, Department of Transportation. *San Joaquin County Officially Designated State Scenic Highways and Historic Parkways 2009.* Available online at http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm

California, State of, Department of Transportation. *Scenic Highway Guidelines*. Also available online at http://www.dot.ca.gov/hq/LandArch/scenic/guidelines/scenic_hwy_guidelines.pdf .

U.S. Department of Transportation, Federal Highway Administration. *The National Scenic Byways Program*. (http://www.scenic.org/byways).

Exhibit 1.1 - Proposed Elevations

blank page

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
2. AGRICULTURE RESOURCES: *In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the Project:*				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program in the California Resources Agency, to non-agricultural use?	■	☐	☐	☐
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	■
c. Conflict with existing zoning for, or cause rezoning of forest land (as defined in PRC Sec. 4526), or timberland zoned Timberland Production (as defined in PRC Sec. 51104 (g)?	☐	☐	☐	■
d. Result in loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	■
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	■	☐	☐	☐

Regulatory Setting

The California Land Conservation Act of 1965

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, is the state's primary program for the conservation of private land in agricultural and open space use (government Code Section 51200 et se.). It is a voluntary, locally administered program that offers reduced property taxes on lands that have enforceable restrictions on their use through contracts between individual landowners and local governments.

Cortese-Knox-Hertzberg Local Government Reorganization Act

In 2000, the Cortese-Knox-Hertzberg Local Government Reorganization Act (AB 2838) extensively modified the state's annexation law. Under AB 2838, soils are considered prime agricultural land if they meet any of the following criteria:

- Land that if irrigated, qualifies for rating as Class I or Class II in the USDA Natural Resources Conservation Service land use capability classification, whether or not the land is irrigated, provide that irrigation is feasible.
- Land that qualifies for rating 80 through 100 Storie Index Rating.
- Land that supports livestock used for the production of food and fiver and that has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture in the National Handbook on Range and

Related Grazing Lands, July 1967, developed pursuant to Public Law 46, December 1935.

- Land planted with fruit or nut-bearing trees, vines, bushes, or crops that have a nonbearing period of less than five years and that will return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than four hundred dollars ($400) per acre.
- Land that has returned from the production of unprocessed agricultural plant products an annual gross value of not less than four hundred dollars ($400) per acre for three of the previous five calendar years.

Farmland Mapping and Monitoring Program Classification

The Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP) prepares Important Farmland maps periodically for most of the state's agricultural areas based on information from Natural Resources Conservation Service (NRCS) soil survey maps, Land Inventory and Monitoring (LIM) criteria developed by NRCS, and land use information mapped by the California Department of Water Resources (DWR). These criteria generally are expressed as definitions that characterize the land's suitability for agricultural production, physical and chemical characteristics of the soil, and actual land use, Important Farmland maps generally are updated every 2 years.

The Important Farmland mapping system incorporates eight mapping categories, five categories relating to farmlands and three categories associated with lands used for non-agricultural purposes. The five farmland mapping categories are summarized below.

- **Prime Farmland:** Lands with the combination of physical and chemical features best able to sustain long-term production of agricultural crops. The land must be supported by a developed irrigation water supply that is dependable and of adequate quality during the growing season. It also must have been used for the production of irrigated crops at some time during the 4 years before mapping data were collected.
- **Farmland of Statewide Importance:** Lands with agricultural land use characteristics, irrigation water supplies, and physical characteristics similar to those of Prime Farmland but with minor shortcomings, such as steeper slopes or less ability to retain moisture.
- Unique Farmland: Lands with lesser quality soils used for the production of California's leading agricultural cash crops. These lands usually are irrigated but may include non-irrigated orchards or vineyards, as found in some of the state's climatic zones.
- Farmland of Local Importance: Lands of importance to the local agricultural economy, as determined by each county's board of supervisors and a local advisory committee.
- Grazing Land: Lands in which the existing vegetation is suited to the grazing of livestock Prime Farmland, Farmland of Statewide Importance, Farmland of Local Importance, and Grazing Land are located in the Project vicinity (Department of Conservation 2001). With the exception of a very small area of land in the northeastern corner of the site, the entire Project site and much of the surrounding area is classified as Prime Farmland (Department of Conservation 2001).

San Joaquin County Right-to-Farm Ordinance.
San Joaquin County also has a Right-to-Farm Ordinance. This ordinance requires that all applicants for building permits for new residential construction be provided with a Right-to-

Farm Notice. This Notice states that the County recognizes and supports the right to farm agricultural lands, and that residents of property on or near agricultural land should be prepared to accept the inconveniences or discomforts associated with agricultural operations, including noise, odors, insects, fumes, dust, 24-hour operations, and the use of fertilizers.

Lodi General Plan

The Lodi General Plan Conservation Element includes the following goals and policies that pertain to agriculture and agricultural lands.

C-G1: Promote preservation and economic viability of agricultural land surrounding Lodi.

C-P3: Support the continuation of agricultural uses on lands designated for urban uses until urban development is imminent.

C-P4: Encourage San Joaquin County to conserve agricultural soils, preserve agricultural land surrounding the city and promote the continuation of existing agricultural operations, by supporting the county's economic programs.

The 2010 Lodi General Plan update EIR identifies only adverse environmental impact that would occur due to the proposed Project and similar others. The development of the proposed Project would result in the loss of approximately 30 acres of Prime Farmland and conflicts between urban and rural land uses would occur, particularly where existing agricultural operations abut established commercial and residential developments. The EIR also discussed pressures on agricultural lands as a potential growth-inducing impact of future development Projects. This adverse impact is the potential conversion of agricultural land, which will effect some agricultural activities and prime agricultural soils. Although there are policies in the proposed General Plan to reduce these impact, conversion of agricultural land to urban use will remain *significant and unavoidable impact*.

However, the Lodi General Plan April 2010 identifies multiple policies to prevent excessive agricultural land conversion. These mitigation measures that reduce impacts include:

C-G1 Promote preservation and economic viability of agricultural land surrounding Lodi.

C-G2 Maintain the quality of the Planning Area's soil resources and reduce erosion to protect agricultural productivity.

C-P1 Work with San Joaquin County and the City of Stockton to maintain land surrounding Lodi in agricultural use. Encourage the continuation of Flag City as a small freeway-oriented commercial node, with no residential uses.

C-P2 Work with San Joaquin County and relevant land owners to ensure economic viability of grape growing, winemaking, and supporting industries, to ensure the preservation of viable agricultural land use.

C-P3 Support the continuation of agricultural uses on lands designated for urban uses until urban development is imminent.

C-P4 Encourage San Joaquin County to conserve agricultural soils, preserve agricultural land surrounding the City and promote the continuation of existing agricultural operations, by supporting the County's economic programs.

C-P5 Ensure that urban development does not constrain agricultural practices or adversely affect the economic viability of adjacent agricultural practices. Use

appropriate buffers consistent with the recommendations of the San Joaquin County Department of Agriculture (typically no less than 150 feet) and limit incompatible uses (such as schools and hospitals) near agriculture.

C-P6 Require new development to implement measures that minimize soil erosion from wind and water related to construction and urban development. Measures may include:

- Construction techniques that utilize site preparation, grading, and best management practices that provide erosion control and prevent soil contamination.
- Tree rows or other windbreaks shall be used within buffers on the edge of urban development and in other areas as appropriate to reduce soil erosion.

C-P7 Maintain the City's Right-to-Farm Ordinance, and update as necessary, to protect agricultural land from nuisance suits brought by surrounding landowners.

C-P8 Adopt an agricultural conservation program (ACP) establishing a mitigation fee to protect and conserve agricultural lands:

- The ACP shall include the collection of an agricultural mitigation fee for acreage converted from agricultural to urban use, taking into consideration all fees collected for agricultural loss (i.e., AB1600). The mitigation fee collected shall fund agricultural conservation easements, fee title acquisition, and research, the funding of agricultural education and local marketing programs, other capital improvement Projects that clearly benefit agriculture (e.g., groundwater recharge Projects) and administrative fees through an appropriate entity ("Administrative Entity") pursuant to an administrative agreement.
- The conservation easements and fee title acquisition of conservation lands shall be used for lands determined to be of statewide significance (Prime or other Important Farmlands), or sensitive and necessary for the preservation of agricultural land, including land that may be part of a community separator as part of a comprehensive program to establish community separators.
- The ACP shall encourage that conservation easement locations are prioritized as shown in Figure 7-5 [of the General Plan]: (A) the Armstrong Road Agricultural/Cluster Study area east of Lower Sacramento Road; (B) the Armstrong Road Agricultural/Cluster Study area west of Lower Sacramento Road; (C) elsewhere in the Planning Area, one mile east and west of the Urban Reserve boundaries respectively; and (D) outside the Planning Area, elsewhere in San Joaquin County.
- The mitigation fees collected by the City shall be transferred to a farmland trust or other qualifying entity, which will arrange the purchase of conservation easements. The City shall encourage the Trust or other qualifying entity to pursue a variety of funding sources (grants, donations, taxes, or other funds) to fund implementation of the ACP.

Growth Management element of the General Plan identifies the following policies to reduce impacts to agricultural uses

GM-G1 Ensure contiguous, paced, and orderly growth by identifying phases for development. Allow development in subsequent phases only once thresholds of reasonable development in prior phases have been achieved.

GM-P2 Target new growth into identified areas, extending south, west, and southeast. Ensure contiguous development by requiring development to conform to phasing described in the General Plan. Enforce phasing through permitting and infrastructure provision. Development may not extend to Phase 2 until Phase 1 has reached 75% of development potential, and development may not extend to Phase 3 until Phase 2 has reached 75% of development potential.

The Lodi General Plan was adopted in April 2010, and represents the official policy regarding the future character and quality of development within the City of Lodi. The General Plan designates the general distribution of different types of land uses within the City, and the document serves as a point of reference for public officials when making land use and planning decisions. While the Project site is outside the City of Lodi's jurisdictional boundary, it is within the City's Sphere of Influence. The Project sites has been assigned a land use designation in the City's General Plan, and the goals and policies of the General Plan are applicable. The General Plan designation for the Project sites Commercial. The Commercial land use designation provides commercial and office uses, and similar and compatible uses. All development under this designation requires approval pursuant to a specific development plan. No General Plan amendment is required for the Project approval.

City of Lodi Right-to-Farm Ordinance.
Chapter 8.18 of the Lodi Municipal Code provides notice of agricultural operations affecting other properties. It is the policy of the city to protect, preserve and encourage the use of viable agricultural land for the production of food and other agricultural products.

The seller of any real property is required to provide a disclosure statement which states that the City of Lodi permits operation of agricultural operations within the city limits, including those using chemical fertilizers and pesticides. The statement further states that the property may be close to agricultural lands, and that the residents may be subject to inconvenience or discomfort arising from agricultural uses or the use of chemicals and pesticides.

County of San Joaquin.
The Project site is located within unincorporated San Joaquin County. An approval by the San Joaquin County Local Agency Formation Commission (LAFCO) of annexation to the City of Lodi is requested as part of the Project. The San Joaquin County General Plan 2010 was adopted by the Board of Supervisors in 1992. The General Plan expresses long-rang public policy to guide the use of private and public lands within a community's boundaries. The San Joaquin County General Plan is the County's official position on development and resource management. The San Joaquin County General Plan designates the entire Project site AG-40.

San Joaquin Local Agency Formation Commission.
The San Joaquin Local Agency Formation Commission (LAFCO) is a county-wide regulatory agency that coordinates changes in local government boundaries. The purpose of LAFCO is to promote orderly growth and prevent the untimely conversion of agricultural land to urban uses. LAFCO approves jurisdictional boundary changes, including annexation of land into a city. The Project area would fall under the purview of LAFCO for review of the annexation.

LAFCO has established factors that are considered in the review of proposals. Some of these factors include: population and population density; the need for organized community

services; the effect of the proposed action and of alternative actions, on adjacent areas, on mutual social and economic interests, and on the local governmental structures of the county; and the extent to which a proposal will affect a city or cities and the county in achieving their respective fair share of the regional housing needs as determined by the council of governments. The San Joaquin LAFCO would make the final determination as to whether the Project sites could be annexed by the City of Lodi.

San Joaquin Council of Governments.
The San Joaquin Council of Governments (SJCOG) has developed a San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). The key purpose of the SJMSCP is to provide a strategy for balancing the need to conserve open space and the need to convert open space to non-open space uses while protecting the region's agricultural economy. The SJMSCP is intended to mitigate impacts to plant, fish and wildlife and to compensate for impacts to recreation, agriculture, and open space.

Under this SJMSCP coverage, new development within the SJMSCP area must pay compensation for the loss of undeveloped land. The Project sites falls within the SJMSCP. The SJMSCP identifies different levels of compensation based upon the condition of use of the land that will be developed. The Plan identifies land within the Project site as Category B, Other Open Space (Pay Zone A).

Existing Conditions
The Project site is mostly vacant land. The eastern half of the Project site is presently utilized for agricultural production while the western half of the Project site is occupied by an abandoned golf driving range. Structures on the Project site include a small fruit stand located at the corner of Harney Lane and West Lane on the agricultural side. Agricultural uses are located to the east, west and south of the Project site. Almond orchards are located immediately east of the Project site. Irrigated vineyards are located south and west of the Project site.

According to the DOC's Map of Important Farmland in California, the entire Project area is located in designated Prime Farmland. According to the California DOC's San Joaquin County Williamson Act Lands map, the proposed Project would not conflict with a Williamson Act contract.

Standards of Significance. A significant impact would include:
- Convert prime farmland, unique farmland or farmland of state-wide importance to non-farming land uses;
- Conflict with agricultural uses, zoning designations or a Williamson Act contract; or
- Otherwise convert farmland to a non-farmland use.

Impact Discussion

a) *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

Potentially Significant Impact. The California Farmland and Monitoring Program and the Program's Important Farmland Map was utilized in conjunction with Geographic Information Systems (GIS) analysis to assess the proposed Project's impacts to farmland. The approximately 30-acre site consists of an abandoned golf driving range and agricultural land. The entire 30-acre Project site is designated as "Prime Farmland" by the Farmland Mapping and Monitoring Program prepared by the California Department of Conservation, Division of Land Resource Protection. Approval of the proposed annexation to the City of Lodi would involve a parcel of land that contains prime agricultural soils, as defined by state LAFCO criteria (see the Environmental Setting section, above). Thus, development of the proposed Project would convert state-designated agricultural Prime Farmland to a non-agricultural use.

There are no feasible mitigation measures that would reduce this impact to a less-than-significant level. This impact would be considered significant and unavoidable even with implementation of the following Mitigation Measure AG-1, which would minimize the impact but not to a less-than-significant level:

MITIGATION MEASURES AG:

1. Prior to issuance of a grading permit for any area of the Project site that includes prime agricultural soils, the affected landowner(s) shall secure agricultural conservation easement in perpetuity at rate of one 1:1 (acreage converted/easement secured) in the northern San Joaquin County area, excluding areas designated as nature or areas already secured as agricultural easements. The said easement shall be designated by the State as Prime Farmland. In addition, the location, size and terms of the easement shall be approved by the City of Lodi City Manager or designee.

Even with implementation of the above mitigation measure, this impact would still be considered significant and unavoidable.

b) *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*

No Impact. The entire Project site is zoned AG-40. This designation was established by San Joaquin County to preserve agricultural lands for the continuation of commercial agriculture enterprises. However, the proposed Project would not conflict with this designation as the City of Lodi has designated the Project site for future development in its General Plan. Annexation of the proposed Project would subject the site to City's Land Use policies for commercial and office uses.

No portions of the Project site are currently under Williamson Act contracts. Therefore, development of the proposed Project would not conflict with existing zoning for agricultural use or a Williamson Act contract.

c) *Conflict with existing zoning for, or cause rezoning of forest land (as defined in PRC Sec. 4526), or timberland zoned Timberland Production (as defined in PRC Sec. 51104 (g)?*

No Impact. A significant impact may occur if the proposed Project were to result in the conversion of forest land to non-forest land. The entire Project site is zoned AG-40, agricultural use. Approval of the proposed annexation and Project would have no impact on forest land, since no forest land exist in the Project area.

d) *Result in loss of forest land or conversion of forest land to non-forest use?*

No Impact. A significant impact may occur if the proposed Project were to result in the conversion of forest land to non-forest land. The entire Project site is zoned AG-40, agricultural use. Approval of the proposed annexation Project would have no impact on forest land, since no forest land exist in the Project areas.

e) *Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?*

Potentially Significant Impact. Full development of the proposed Project would result in commercially zoned areas abutting agriculture. Agricultural uses are located immediately west, south and east of the Project site. There are no buffers or physical barriers proposed between the Proposed development and the existing agricultural uses. Due to the immediate proximity, and the lack of physical barriers, impacts could include late night agricultural operations, nuisance odors, dust and wind erosion, or vandalism of agricultural areas. The following mitigation measures are proposed to reduce the potential conflicts associated with the proposed Projects and the ongoing agricultural operations to the west.

MITIGATION MEASURES AG:

2. The applicant shall inform and notify prospective buyers in writing, prior to purchase, about existing and on-going agricultural activities in the immediate area in the form of a disclosure statement. The notifications shall disclose that the Project site is located in an agricultural area subject to ground and aerial applications of chemical and early morning or nighttime farm operations which may create noise, dust, etcetera. The language and format of such notification shall be reviewed and approved by the City Community Development Department prior to recordation of final map(s). Each disclosure statement shall be acknowledged with the signature of each prospective owner. Additionally, each prospective owner shall also be notified of the City of Lodi and the County of San Joaquin Right-to-Farm Ordinance.

FINDINGS

Implementation of the above mitigation measures would reduce impacts to levels of less than significant. However, there are impacts that are significant and unavoidable.

Sources:

California Department of Conservation, Division of Land Resource Protection. *San Joaquin County Important Farmland 2006*. June 2008.

_____. Farmland Mapping and Monitoring Program (2004-2006).

City of Lodi. *Lodi General Plan.* Prepared by Dytte & Bhatia, Inc. April 2010.

California, State of, Department of Conservation, Division of Land Resource Protection. *San Joaquin County Important Farmland 2006.* Available online at http://redirect.conservation.ca.gov/DLRP/fmmp/county_info_results.asp

City of Lodi. *Lodi General Plan EIR 2010.* Prepared by Dytte & Bhatia, Inc. SCH Number: 2009022075. April 2010.

San Joaquin County. San Joaquin County Important Farmland 2006.

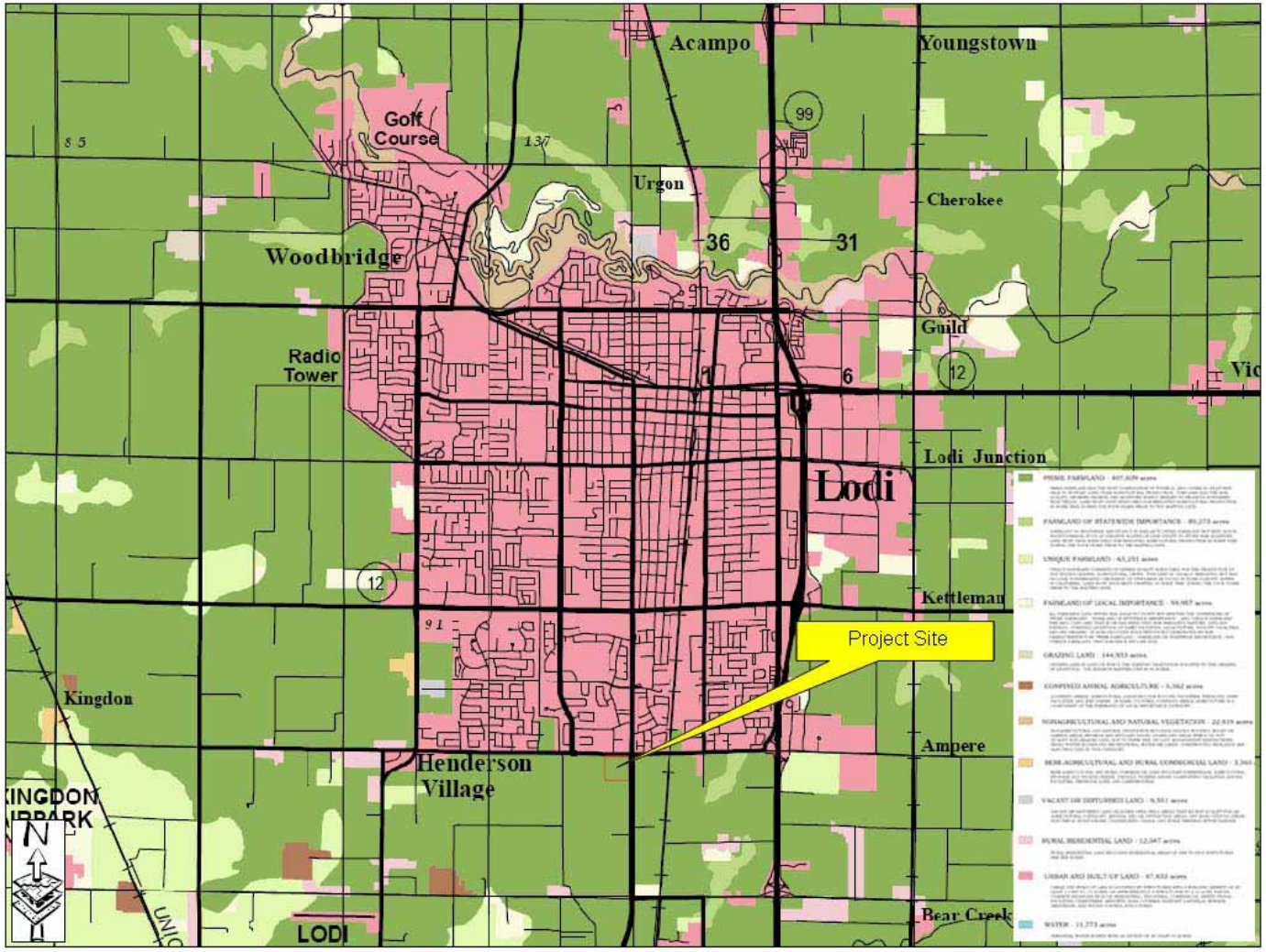


Exhibit 2.1 - San Joaquin County Important Farmland Map 2006

Blank Page

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.	**AIR QUALITY.** *Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations:* *Would the Project:*				
a.	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	■	☐
b.	Violate any air quality standard or contribute substantially to an existing or Projected air quality violation?	☐	■	☐	☐
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	■	☐	☐
d.	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	■	☐
e.	Create objectionable odors affecting a substantial number of people?	☐	☐	■	☐

Introduction

The City of Lodi is located in the San Joaquin Valley Air Basin (SJVAB). Air quality conditions in the SJVAB are regulated by the San Joaquin Valley Air Pollution Control District (SJVAPCD). The following sections describe the overall regulatory framework for air quality management in California and the region, discuss federal and state ambient air quality standards, summarize existing air quality conditions in the Project area, and identify sensitive receptors in the Project area.

Regional Climate and Topography

The area's climate is considered "inland Mediterranean" and is characterized by warm, dry summers and cool winters. Summer high temperatures often exceed 100°F, averaging in the low 90s in the northern valley and high 90s in the south. Although marine air generally flows into the basin from the Sacramento-San Joaquin River Delta, the surrounding mountain ranges restrict air movement through and out of the valley. Wind speed and direction influence the dispersion and transportation of ozone precursors, particulate matter less than 10 microns in diameter (PM_{10}), and carbon monoxide (CO); the more wind flow, the less accumulation of these pollutants.

The vertical dispersion of air pollutants in the SJVAB is limited by the presence of persistent temperature inversion (warm air over cool air). Because of differences in air density, the air above and below the inversion does not mix. Ozone (03) and its precursors will react to produce higher concentrations under an inversion and will trap directly emitted pollutants,

such as *0.* Precipitation and fog tend to reduce or limit pollutant concentrations. Ozone needs sunlight for its formation, and clouds and fog block the required radiation. CO is slightly water soluble, so precipitation and fog tend to reduce CO concentrations in the atmosphere. PM_{10} is somewhat "washed" from the atmosphere with precipitation. Annual precipitation in the San Joaquin Valley decreases from north to south, with about 20 inches in the north, 10 inches in the middle, and less than 6 inches in the southern part of the valley.

Air Quality Management

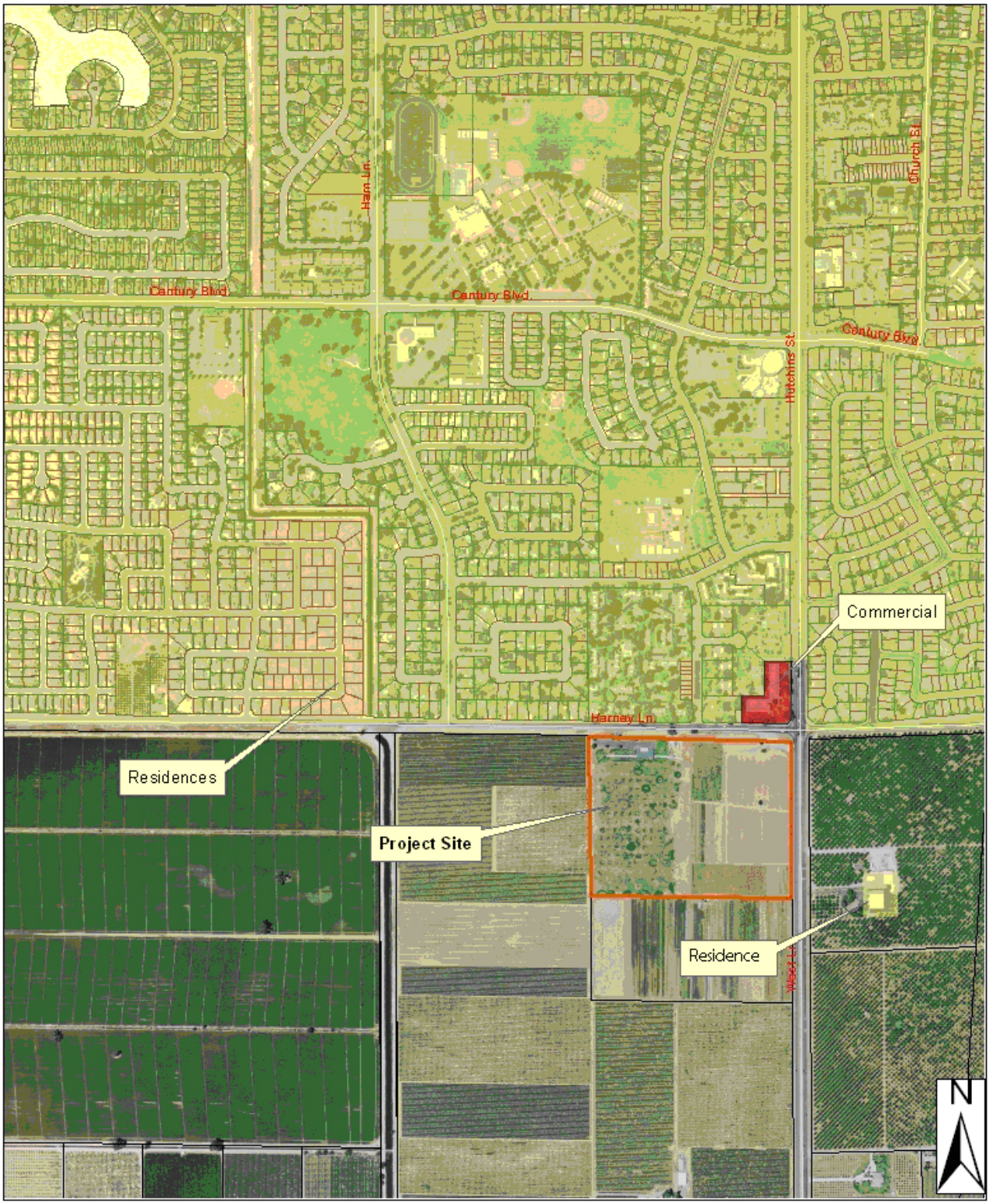
The air quality management agencies of direct importance in San Joaquin County include the U.S. Environmental Protection Agency (EPA), California Air Resources Board (ARB), and the SJVAPCD. EPA has established federal ambient air quality standards for which ARB and the SJVAPCD have primary implementation responsibility. ARB and the SJVAPCD are also responsible for ensuring that state ambient air quality standards are met. The SJVAPCD is also responsible for implementing strategies for air quality improvement and recommending mitigation measures for new growth and development.

Air quality is determined primarily by the type and amount of contaminants emitted into the atmosphere, the size and topography of the air basin, and its meteorological conditions. State and federal criteria pollutant emission standards have been established for six pollutants: CO, 03, PM_{10} and $PM_{2.5}$ [particulates 2.5 microns or less in diameter]), nitrogen dioxide (NO_z), sulfur dioxide (SO_z), and lead. Within the SJVAB, the SJVAPCD is responsible for ensuring that these emission standards are not violated.

Existing air quality conditions in the Project area can be characterized in terms of the ambient air quality standards that the federal government and California have established for several different pollutants. For some pollutants, separate standards have been set for different measurement periods. Most standards have been set to protect public health and welfare with an adequate margin of safety. For some pollutants, standards have been based on other values (such as protection of crops, protection of materials, or avoidance of nuisance conditions). The national ambient air quality standards (NAAQS), which describe acceptable conditions, were first authorized by the federal Clean Air Act of 1970. Air quality is considered in "attainment" if pollutant levels are below or equal to the NAAQS continuously and exceed them no more than once each year. The California Ambient Air Quality Standards (CAAQS), which describe adverse conditions, were authorized by the state legislature in 1967. Pollution levels must be below the CAAQS before a basin can attain the standard.

Sensitive Receptors

The SJVAPCD defines sensitive receptors as "facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants (San Joaquin Valley Air Pollution Control District 2002)." Typical sensitive receptors are residences, hospitals, schools, parks, and places of worship. In the Project vicinity, sensitive receptors include a residential subdivisions in the north quadrant of the Project area; Beckman School Elementary School, which is approximately 1,350 feet west of the Harney Lane, and scattered rural residences located south of Harney Lane.



South Hutchins Annexation Project
City of Lodi

Figure 3-1
Sensitive Receptors

Blank Page

San Joaquin Valley Air Pollution Control District Thresholds
SJVAPCD does not require construction emissions to be quantified. Rather, it requires implementation of effective and comprehensive feasible control measures to reduce PM_{10} emissions (San Joaquin Valley Air Pollution Control District 2002). SJVAPCD considers PM_{10} emissions to be the greatest pollutant of concern when assessing construction-related air quality impacts. It has determined that compliance with its Regulation VIII, including implementation of all feasible control measures specified in its *Guide for Assessing Air Quality Impacts* (San Joaquin Valley Air Pollution Control District 2002) constitutes sufficient mitigation to reduce construction-related PM_{10} emissions to less-than-significant levels and minimize adverse air quality effects. Since the publication of the district's guidance manual, the district has revised some of the rules making up Regulation VIII, Guidance from district staff indicates that implementation of a dust control plan would satisfy all of the requirements of SJVAPCD Regulation VIII. Although explicit thresholds for construction-related emissions of ozone precursors are not enumerated in the *Guide for Assessing and Mitigating Air Quality Impacts,* the SJVAPCD considers a significant impact to occur when construction emissions of reactive organic gases (ROG) or oxides of nitrogen (NO_x) exceed 10 tons per year.

On December 15, 2005, SJVAPCD adopted Rule 9510, Indirect Source Review. This rule fulfills the district's emission reduction commitments in the PM_{10} and Attainment Plans through emission reductions from the construction and use of development Projects through design features and onsite measures. Rule 9510 requires implementation of control measures to mitigate construction related NO_x and PM_{10} emissions from roadway Projects in excess of 2.0 tons. If additional mitigation is necessary to achieve the required reductions, emissions offsets can be purchased. Compliance with Rule 9510 is separate from the CEQA process, although the control measures used to comply with the Rule 9510 may be used to mitigate CEQA impacts.

Operational Thresholds
The SJVAPCD's thresholds of significance, as indicated in their *Guide for Assessing and Mitigating Air Quality Impacts* (san Joaquin Valley Air Pollution Control District 2002), a Project impact would be significant if:

- Project implementation would produce emission increases greater than 10 tons/per ROG.
- Project implementation would produce emission increases greater than 10 tons/per NO_x.
- Project implementation would produce emission increases greater than 15 tons/per PM_{10}.
- Project-related emissions of CO would exceed NAAQS or CAAQS.

<u>Standards of Significance.</u> For the purposes of this document, the proposed Project will have a significant impact if it would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or Projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people.

Impact Discussion

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant Impact. A significant impact may occur if the Project is not consistent with applicable Air Quality Management Plan (AQMP) or in some way represents a substantial hindrance to employing the policies or obtaining the goals of the plan.

Air quality plans or attainment plans are used to bring the applicable air basin into attainment with all state and federal ambient air quality standards designed to protect the health and safety of residents within that air basin. The San Joaquin Valley Air Pollution Control District (SJVAPCD), which regulates air quality in the San Joaquin Valley, has prepared and implements specific plans to meet the applicable laws, regulations and programs, including the 1991 Air Quality Attainment Plan (AQAP), which is a comprehensive air pollution control program for attaining state and federal ambient air quality standards. As part of its General Plan, the City adopted an Air Quality Element that contains policies and goals for attaining state and federal air quality standards, while simultaneously facilitating local economic growth and includes implementation strategies for local programs contained in the AQMP.

Attainment status: The San Joaquin Valley is designated non-attainment of state and federal health based air quality standards for ozone and irrespirable particulate matter (PM). Under the federal classification scheme, the San Joaquin Valley is classified serious non-attainment for both the PM_{10} (particulate matter less than 10 micrometers in diameter) standard and the 8-hour ozone standard. To meet federal Clean Air Act (CAA) requirements, the District has adopted an Extreme Ozone Attainment Demonstration Plan (2004) and a PM_{10} attainment demonstration plan (2003 PM10 Plan). Both plans have 2010 attainment dates; however, the District recently submitted a request to be designated attainment for the federal PM_{10} standard. EPA finalized the determination that the San Joaquin Valley has attained the PM_{10} standards on October 30, 2006. The District will remain designated Serious Non-attainment for PM_{10} until the District submits and EPA approves a maintenance plan for the air basin and the District completes other CAA requirements. In addition, the federal one-hour ozone standard has been revoked by EPA and replaced with an 8-hour standard. The planning requirements for the one-hour plan remain in effect until replaced by a federal 8-hour ozone attainment plan that is due to EPA by June 15, 2007. The San Joaquin Valley Air Basin is also designated non-attainment for the new federal $PM_{2.5}$ (particulate matter less than 2.5 micrometers in diameter) annual standard. The District's federal $PM_{2.5}$ attainment plan is due April 5, 2008. Measures contained in the 2003 PM_{10} Plan will also help reduce $PM_{2.5}$ levels and will provide progress toward attainment until new measures are implemented for the $PM_{2.5}$ Plan, if needed. State ozone standards do not have an attainment deadline but require implementation of all feasible measures to achieve attainment at the earliest date possible. State PM_{10} standards have no attainment planning requirements, but air districts not meeting this standard must demonstrate that all measures feasible for the area have been adopted. A PM_{10} Plan revision using new modeling data was submitted to EPA in 2006 that maintained the existing control strategy and Projected attainment date.

Significance determination: The District's threshold for significant impact for ROG and NOx is 10 tons/year of each. The District does not recommend a quantitative threshold for PM10 emissions from construction activities since it considers compliance with Regulation VIII – Fugitive Dust Prohibitions to reduce this impact to less than significant. However, a threshold of 15 tons/year for operational PM10 is often used as a comparable threshold value for this pollutant.

The proposed Project: A Project is deemed inconsistent with air quality plans if it would result in population and/or employment growth that exceeds growth estimates included in the applicable air quality plan, which, in turn, would generate emissions not accounted for in the applicable air quality plan emissions budget. Therefore, proposed Project needs to be evaluated to determine whether it would generate population and employment growth, regional growth in Vehicle Miles Traveled and, if so, whether that growth would exceed the growth rates included in the relevant air plans. The basin Air Quality Management Plan (AQMP) is based upon the growth forecasts for the region. The AQMP anticipates emissions increases from planned growth, and emissions reductions from existing and future control programs.

To the extent that the Proposed Project is consistent with City of Lodi General Plan Projections, and to the extent that local job generation is air quality positive in reducing out-of-area travel, the Project is considered consistent with the AQMP. In addition, the Proposed Project is consistent with the regional and local transit programs. Development of the Project site is also required to comply with applicable City's requirements, standards and requirements.

MITIGATION MEASURES AIR:

1. Parcel Maps, Prezoning designation, future Conditional Use Permits, Site Plan Review, and Planned Development Review must be evaluated to ensure compliance with air quality standards, including construction, area source, and operational emissions.

b) Violate any air quality standard or contribute substantially to an existing or Projected air quality violation?

A significant impact may occur if the proposed Project violates any SJVAPCD air quality standard. The SJVAPCD has set thresholds of significance for reactive organic gases (ROG), nitrogen oxides (NOx), carbon monoxide (CO), sulfur dioxide (SO_2), and particulate matter (PM_{10}) emissions resulting from construction and operation in the San Joaquin Valley.

Less than Significant with Mitigation. The proposed Project site is located within the San Joaquin Valley Air Basin (SJVAB), which is identified as a federally designated non-attainment area for ozone, particulate matter 10 microns or smaller (PM_{10}), and particulate matter 2.5 microns or smaller ($PM_{2.5}$) and as a state-designated non-attainment area for PM_{10}. As a result, any new emissions into the SJVAB are considered potentially significant impacts. The proposed Project would result in substantial construction activities. Additionally, because the proposed Project would result in increased vehicular trips in the area, long-term impacts on air quality could result from the increased contribution of ozone, carbon monoxide, and other pollutants.

The SJVAPCD has established methods to quantify air emissions significance thresholds associated with construction activities such as air pollutant emissions generated by operation of on-site construction equipment; fugitive dust emissions related to grading and site work activities; and mobile (tailpipe) emissions from construction worker vehicles and haul/delivery truck trips. Emissions would vary from day to day, depending on the level of activity, the specific type of construction activity occurring, and, for fugitive dust, prevailing weather conditions. According to the district's ***Guide for Assessing and Mitigating Air Quality Impacts*** Projects proposed in jurisdiction with general plans that are consistent with the SJVAPCD's Air Quality Attainment Plan (AQAP) and Projects that conform to those general plans would not create significant cumulative air quality impacts.

When quantifying mass emissions for localized analysis, only emissions that occur on-site are considered. Consistent with the SJVAPCD guidelines, emissions related to off-site delivery/haul truck activity and employee trips are not considered in the evaluation of localized impacts. As such, localized impacts that may result from air pollutant emissions during the construction phases would be less than significant.

The SJVAPCD significance threshold for construction dust impacts is based on the appropriateness of construction dust controls. The SJVAPCD regulates construction emissions through its Regulation VIII. Regulation VIII does not require any formal dust control plans or permits, but violations of the requirements of Regulation VIII are subject to enforcement action. The provisions of Regulation VIII pertaining to construction activities require:

- Effective dust suppression for land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill and demolition activities.
- Effective stabilization of all disturbed areas of a construction site, including storage piles, not used for seven or more days.
- Control of fugitive dust from on-site unpaved roads and off-site unpaved access roads.
- Removal of accumulations of mud or dirt at the end of the work day or once every 24 hours from public paved roads, shoulders and access ways adjacent to the site.

Compliance with SJVAPCD's adopted Regulation VIII is required by the mitigation measures below. The SJVAPCD Rule 9510 Indirect Source Review was adopted December 15, 2005 and took effect March 1, 2006. The purpose of Rule 9510 is to reduce emissions of NOx and PM10 from both the construction and operation of new development in the San Joaquin Valley. The rule applies to development Projects that include minimum of: 50 residential units, 2,000 square feet (SF) of commercial space, 25,000 SF of industrial space, 20,000 SF of medical office space, 39,000 SF of general office space, 9,000 SF of educational space, 10,000 SF of government space, 20,000 SF of recreational space or 9,000 SF of uncategorized space.

MITIGATION MEASURES AIR:

2. The Project proponent shall prepared an Air Impact Assessment (AIA) study for review and approval by the San Joaquin Valley Air Pollution Control District. The said AIA shall be completed and submitted prior to issuance of any building permit for the project include grade and site clearance permits.
3. The City shall not issue a building permit for grading, clearing or construction of the proposed Project until the applicant obtains grading and building permits from the San Joaquin Valley Air Control District.
4. Construction of the proposed Project shall comply with all applicable regulations specified in the San Joaquin Valley Air Pollution Control District Regulation VIII (Fugitive Dust Rules), including, but not limited to, compliance with the following mitigation measures:
   i. Visible Dust Emissions (VDE) from construction, demolition, excavation or other earthmoving activities related to the Project shall be limited to 20% opacity or less, as defined in Rule 8011, Appendix A.
   ii. Pre-water all land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and phase earthmoving.
   iii. Apply water, chemical/organic stabilizer/suppressant, or vegetative ground cover to all disturbed areas, including unpaved roads.
   iv. Restrict vehicular access to the disturbance area during periods of inactivity.
   v. Apply water or chemical/organic stabilizers/suppressants, construct wind barriers and/or cover exposed potentially dust-generating materials.
   vi. When materials are transported off-site, stabilize and cover all materials to be transported and maintain six inches of freeboard space from the top of the container.
   vii. Remove carryout and trackout of soil materials on a daily basis unless it extends more than 50 feet from site; carryout and trackout extending more than 50 feet from the site shall be removed immediately. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden. If the Project would involve more than 150 construction vehicle trips per day onto the public street, additional restrictions specified in Section 5.8 of Rule 8041 shall apply.
   viii. Traffic speeds on unpaved roads shall be limited to 15 mph.
5. During construction, all grading activities shall cease during periods of high winds (i.e., greater than 30 mph). To assure compliance with this measure, grading activities are subject to periodic inspections by City staff.
6. Construction equipment shall be kept in proper operating condition, including proper engine tuning and exhaust control systems.
7. Trucks and other construction vehicles shall not park, queue and/or idle at the Project site or in the adjoining public rights-of-way before 7:00 AM or after 10 PM, in accordance with the permitted hours of construction stated in the City of Lodi Municipal Code.
8. Disturbed areas designated for landscaping shall be prepared as soon as possible after completion of construction activities.
9. Areas of the construction site that will remain inactive for three months or longer following clearing, grubbing and/or grading shall receive appropriate BMP treatments (e.g., revegetation, mulching, covering with tarps, etc.) to prevent fugitive dust generation.

10. All exposed soil or material stockpiles that will not be used within 3 days shall be enclosed, covered, or watered twice daily, or shall be stabilized with approved nontoxic chemical soil binders at a rate to be determined by the on-site construction supervisor.

11. Unpaved access roads shall be stabilized via frequent watering, non-toxic chemical stabilization, temporary paving, or equivalent measures at a rate to be determined by the on-site construction supervisor.

12. Trucks transporting materials to and from the site shall allow for at least two feet of freeboard (i.e., minimum vertical distance between the top of the load and the top of the trailer). Alternatively, trucks transporting materials shall be covered.

13. Where visible soil material is tracked onto adjacent public paved roads, the paved roads shall be swept and debris shall be returned to the construction site or transported off site for disposal.

14. Wheel washers, dirt knock-off grates/mats, or equivalent measures shall be installed within the construction site where vehicles exit unpaved roads onto paved roads.

15. Diesel powered construction equipment shall be maintained in accordance with manufacturer's requirements, and shall be retrofitted with diesel particulate filters where available and practicable.

16. Heavy duty diesel trucks and gasoline powered equipment shall be turned off if idling is anticipated to last for more than 5 minutes.

17. Where feasible, the construction contractor shall use alternatively fueled construction equipment, such as electric or natural gas-powered equipment or biofuel.

18. Heavy construction equipment shall use low NOx diesel fuel to the extent that it is readily available at the time of construction.

19. The construction contractor shall develop a construction traffic management plan and submit it to the City for review and approval. The said plan shall include the following:

i. Scheduling heavy-duty truck deliveries to avoid peak traffic periods

ii. Consolidating truck deliveries

20. The construction contractor shall maintain signage along the construction perimeter with the name and telephone number of the individual in charge of implementing the construction emissions mitigation plan, and with the telephone number of the SJVAPCD's complaint line. The contractor's representative shall maintain a log of any public complaints and corrective actions taken to resolve complaints.

21. During grading and site preparation activities, exposed soil areas shall be stabilized via frequent watering, non-toxic chemical stabilization, or equivalent measures at a rate to be determined by the on-site construction supervisor.

22. During windy days when fugitive dust can be observed leaving the construction site, additional applications of water shall be required at a rate to be determined by the onsite construction supervisor.

23. Prior to issuance of a building permit, the Project proponent shall prepare and submit health risk screening analysis using Project-specific information pursuant to the requirements of the San Joaquin Valley Air Control District.

c) *Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?*

A significant impact may occur if the proposed Project, when viewed together with the effects of other Projects, would result in a considerable net increase of a criteria pollutant for which the region exceeds air quality standards.

Less Than Significant with mitigation incorporated. The San Joaquin Valley Air Pollution Control District's approach for assessing cumulative impacts is based on the Air Quality Management Plan (AQMP) forecasts of attainment of ambient air quality standards in accordance with the requirements of the Federal and State Clean Air Acts. As discussed earlier in 3a, the proposed Project would be consistent with the AQMP, which is intended to bring the district into attainment for all criteria pollutants.[1] Further, as indicated in item 3(b) above, construction and operational emissions of the Project would not exceed the SJVAPCD's thresholds of significance for criteria pollutants. For those emissions generated during construction, the minor generation of criteria pollutants would be temporary and short-term in nature. As such, cumulative impacts would be less than significant with mitigation measures incorporated.

An individual Project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a Project may worsen a significant impact through its incremental contribution combined with the contributions of all other sources of GHG. In assessing cumulative impacts, it must be determined whether a Project's incremental effect is "cumulatively considerable." (See State CEQA Guidelines sections 15064[i][l] and 15130) To make this determination, the incremental impacts of the Project must be examined with and in the context of the effects of past, current, and probable future Projects.

In comparison to existing conditions, operation of the proposed Project would increase vehicle emissions generated by mobile source as well as emissions generated by stationary sources, including natural gas and electricity consumption, and emissions generated from the use of consumer products. Mobile source emissions related to trips to and from the Project site were calculated by using the ITE Trip Generation (7th Edition, 2003) for mixed mid-size stores, medical, commercial and professional offices, which results in a total Project trip estimate of 12,714 trips per day. Based on pre-design information, no substantial energy use, including vehicular daily use, was identified for operation of the Project that is not identified in the City's *General Plan April 2010* and its accompanying EIR. Further, reduction, as required by Rule 9510, can occur through on-site measures, such as

[1]. CEQA Guidelines Section 15064(h)(3) states "A lead agency may determine that a Project's incremental contribution to a cumulative effect is not cumulatively considerable if the Project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem (e.g. water quality control plan, air quality plan, integrated waste management plan) within the geographic area in which the Project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency."

vehicle trip reduction or enhanced energy efficiency, or off-site measures, such as purchase of cleaner equipment or retirement of old “clunkers”. In accordance with Rule 9510, any quantifiable off-set must be documented in an Air Impact Assessment (AIA) application submitted to the SJVAPCD on or before the date of any final public agency discretionary action. Excess emissions require payment of an off-site mitigation fee. The SJVAPCD utilizes these fees for basin-wide mitigation programs that improve regional air quality. A cumulatively considerable net increase of any criteria pollutant would not occur and this impact is considered less than significant after mitigation. Therefore, as described above under "b," the proposed Project would not create a significant air quality impact after implementation of Mitigation Measure AIR-3.

d) Expose sensitive receptors to substantial pollutant concentrations?

A significant impact may occur if construction or operation of the proposed Project generated pollutant concentrations to a degree that would significantly affect sensitive receptors. Land uses considered to be sensitive receptors include long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, child care centers, and athletic facilities.

Less-than-Significant Impact. The proposed Project would generate air pollutants that could affect sensitive receptors. However, with existing regulations and the mitigation measures included in this EIR, the Project would not expose any sensitive receptors to substantial pollutant concentrations. The Project site is a 30-acre, rectangular-shaped plot on the southern periphery of the developed portion of the City of Lodi. The Project site is primarily agricultural with an abandoned golf range. The area north of the Project site is predominately single family residences with several multi-family residences scattered. The surrounding land uses extending east, west, and south remain currently as agricultural uses/open space. Of the surrounding and onsite land uses, only residences are sensitive receptors.

As discussed above in Impact 3.1.1, the Project would generate short-term (construction) and long-term (operational) air pollutants. The criteria pollutants generated by the Project are ozone precursors (NOx and ROG), particulate matter, and carbon monoxide. Construction activities are anticipated to involve the operation of diesel-powered equipment. In October 2000, the ARB identified diesel exhaust as a Toxic Air Contaminant (TAC). The SJVAPCD does not consider construction equipment diesel-related cancer risks to be an issue because of the short-term nature of construction activities. Cancer health risks associated with exposures to diesel exhaust typically are associated with chronic exposure, in which a 70-year exposure period often is assumed. Although elevated cancer rates can result from exposure periods of less than 70 years, acute exposure (i.e., exposure periods of 2 to 3 years) to diesel exhaust typically is not anticipated to result in the concentrations necessary to constitute a health risk. Health impacts associated with exposure to diesel exhaust from Project construction are not anticipated to be significant because construction activities will be well below the 70-year exposure period; therefore, construction of the Project is not anticipated to results in an elevated cancer risk to exposed persons. Consequently, this impact is less than significant. Further, application and toxicity of agricultural chemicals is also strictly regulated when they are used near homes or schools. Although the Project site is adjacent to active agricultural operations, the

potential sensitive receptor impacts are less-than-significant due to the Project's design and regulatory control regarding the use and application of agricultural chemical.

Construction Impacts. Construction activity would occur at various times within the annexation area, although no specific construction is currently proposed. Construction activities associated with development or redevelop within the annexation area could included demolition, excavation, grading, new building construction, and paving. Generally, the most substantial air pollutant emissions would be dust generated from site preparation and grading. Without adequate dust control measures, visible dust clouds extending beyond the construction site could occur.

The effects of construction activities would be increased dustfall and locally elevated levels of PM10, and PM2.5 downwind of construction activity. Construction dust has the potential for creating a nuisance at nearby properties. This is considered a potentially significant impact. Adherence to the following measure will reduce this impact to a less-than-significant level.

MITIGATION MEASURES AIR:

Consistent with guidance from the SJVAPCD, the following measures, Best Management Practices, shall be required of all major construction contracts and specifications within the Project area. This shall include private development Projects and public works Projects:

24. A11 exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

25. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

26. A11 visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

27. All vehicle speeds on unpaved roads shall be limited to 15 mph.

28. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

29. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCRI]). Clear signage shall be provided for construction workers at all access points.

30. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

31. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

The above measures include all basic BAMs identified by the SJVAPCD. According to the District threshold of significance for construction impacts, implementation of the measure would reduce construction dust impacts of the Project to a less-than-significant level.

Criteria Air Pollutants and Precursors. The SJVAPCD has developed construction screening criteria for criteria pollutants and precursors. If a Project meets the screening criteria in Table 3- 1 of the CEQA Air Quality Guidelines, the Project would not result in the generation of operational-related criteria air pollutants and/or precursors that exceed the SJVAPCD thresholds of significance for criteria air pollutants and precursors, and construction would result in a less-than-significant cumulative impact to air quality from criteria air pollutant and precursor emissions.

e) Create objectionable odors affecting a substantial number of people?

Less-than-Significant Impact. According to the *San Joaquin Valley Air Pollution Control District Guide,* land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed Project would not propose, and would not facilitate, uses that are significant sources of objectionable odors. Rather, the Project would remove agricultural operations from the site, which are an existing source of potential odors. Potential sources of odor associated with the proposed Project may result from construction equipment exhaust and application of asphalt and architectural coatings during construction activities, the temporary storage of solid waste (refuse) associated with commercial and office (long-term operational) uses, as well as odors produced from the various commercial uses, including restaurants. Standard construction requirements would be imposed upon the applicant to minimize odors from construction. The construction odor emissions would be temporary, short-term, and intermittent in nature, and impacts associated with construction-generated odors are expected to be substantial. It is expected that any Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City's solid waste regulations. Therefore, odors associated with the proposed Project construction and operation would be ***less than significant***.

FINDINGS

Implementation of the mitigation measures described in the Air Quality section would reduce impacts to air quality less than significant.

Sources:

California Air Resources Board. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective.*

City of Lodi. 2010. *City of Lodi General Plan Policy Document.* Prepared by Dytte and Bhatia, Inc., April 2010.

San Joaquin Valley Air Pollution Control District. 2002. Guide for assessing and mitigating air quality impacts. Mobile Sources/CEQA Pages 22-26. Section of the Planning Division of the san Joaquin Valley Air Pollution Control District. Fresno, CA.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
4. GREENHOUSE GAS EMISSIONS. *Would the Project:*				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	■	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	■	☐

Climate Change Regulatory Setting

Global climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change (IPCC). However, the efforts devoted to greenhouse gas (GHG) emissions reduction and climate change research and policy have increased dramatically in recent years. These efforts are concerned primarily with the emissions of GHG related to human activity that include carbon dioxide (COz), methane, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (I l l , 1,2 -tetrafluoroethane), and HFC-152a (difluoroethane).

In 2002, with the passage of Assembly Bill 1493 (AB 14931, California launched an innovative and proactive approach to dealing with GHG emissions and climate change at the state level. AB 1493 requires the ARB to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009 model year; however, in order to enact the standards, California needed a waiver from the EPA. The waiver initially was denied by EPA in December 2007. On January 26,2009, it was announced that EPA would reconsider their decision regarding the denial of California's waiver. On June 30,2009, EPA granted a waiver of Clean Air Act preemption to California for its GHG emission standards for motor vehicles beginning with the 2009 model year. (Reference: EPA "California Greenhouse Gas Waiver" website. Available: **http://www.epa.gov/oms/climate/ca-waiver.htm)**

Federal Greenhouse Gas regulations

Climate change and GHG reduction are also a concern at the federal level; however, at this time, no legislation or regulations have been enacted specifically addressing GHG emissions reductions and climate change. California, in conjunction with several environmental organizations and several other states, sued to force the EPA to regulate GHG as a pollutant under the Clean Air Act (Massachusetts vs. Environmental Protection Agency et a/., 549 U.S. 497 (2007). The court ruled that GHG does fit within the Clean Air Act's definition of a pollutant, and that the EPA does have the authority to regulate GHG.

On December 7, 2009, the EPA signed two distinct findings regarding greenhouse gases under section 202(a) of the Clean Air Act.

- Endangerment Finding: The Administrator finds that the current and Projected concentrations of the six key well-mixed greenhouse gases-C02, methane (CHs), nitrous

oxide (NzO), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6)-in the atmosphere threaten the public health and welfare of current and future generations.

- Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare (Environmental Protection Agency 2009).

California Greenhouse Gas Regulations

On June 1,2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this Executive Order is to reduce California's GHG emissions to: (1) 2000 levels by 2010, (2) 1990 levels by the 2020 and (3) 80% below the 1990 levels by the year 2050. In 2006, a portion of this goal was placed into statute by the passage of Assembly Bill 32 (AB 38, the Global Warming Solutions Act of 2006. AB 32 sets the same overall GHG emissions reduction goal of 1990 levels by the 2020 while further mandating that ARB create a plan that includes market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." The ARB adopted the AB 32 Scoping Plan in December 2008. Executive Order S-20-06 directs state agencies to begin implementing AB 32, including the recommendations made by the state's Climate Action Team.

With Executive Order S-01-07, Governor Schwarzenegger set forth the low carbon fuel standard for California. Under this executive order, the carbon intensity of California's transportation fuels is to be reduced by at least 10% by 2020 through regulations to be adopted by ARB.

California State law defines greenhouse gases as:

Carbon Dioxide (CO2)
Methane (CH4)
Nitrous Oxide (N2O)
Hydrofluorocarbons
Perfluorocarbons
Sulfur Hexafluoride

The overall approach to the GHG calculation in this report is based upon the technical advisory of the Governor's Office of Planning and Research (OPR) embodied in the document *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review.* According to the Governor's Office of Planning and Research, the most common GHG that results from human activity is carbon dioxide, followed by methane and nitrous oxide. The last 3 of the six identified GHGs are primarily emitted by industrial facilities.

Climate Change Threshold

The SJVAPCD adopted guidance for addressing GHG emission on December 17, 2009. No numerical thresholds have been established, but Projects will be required to employ a 2% reduction in GHG emissions, consistent with AB 32 emission reduction targets.

California GHG Emissions

The State of California alone produces about 2% of the entire world's GHG emissions. Major emission sources in California include transportation (39%), electric power (22%),

commercial and residential (9%), industrial (20%), recycling and waste (1%), and agricultural (6%). Forestry is expected to have a have a net reduction on total emissions by about 1%. The State of California is looking at options and opportunities for drastically reducing GHG emissions with the hope of thereby delaying, mitigating, or preventing at least some of the anticipated impacts of GCC on California communities (ARB, 2009b).

San Joaquin Valley Emissions

To date, few GHG emissions inventories have been completed for the San Joaquin Valley. As part of its General Plan Update, San Joaquin County prepared a GHG inventory for government and Countywide activities, including contributions from agriculture, energy, transportation, and waste. In addition, in 2008 the San Joaquin Valley Air Pollution Control District adopted a Climate Change Action Plan (see Regulatory Setting).

Lodi Emissions

To date, no GHG emissions inventories have been completed for the City of Lodi. However, many of the City's current practices and policies already seek to reduce GHG emissions. For instance, Lodi's average power mix in 2008 included more renewable (27%) than the State average (10%) and less coal (21%) than the state average (32%).

Sources of Greenhouse Gas Emissions. Anthropogenic GHG emissions worldwide as of 2005 totaled approximately 30,800 C02 equivalent million metric tons (MMTCO2E). The United States was the top producer of greenhouse gas emissions as of 2005. The primary greenhouse gas emitted by human activities in the United States was CO2, representing approximately 84 percent of total greenhouse gas emissions. Carbon dioxide from fossil fuel combustion, the largest source of US greenhouse gas emissions, accounted for approximately 80 percent of US GHG emissions.

The primary contributors to GHG emissions in California are transportation, electric power production from both in state and out-of-state sources, industry, agriculture and forestry, and other sources, which include commercial and residential activities. These primary contributors to California's GHG emissions and their relative contributions are presented in Table 4-1.

Source Category	Annual GHG Emissions (MMTC0$_2$E)	Percent of Total
Agriculture	27.9	5.8
Commercial Uses	12.8	2.6
Electricity Generation	119.8	24.7
Forestry (Excluding sinks)*	0.2	0 .O
Industrial Uses	96.2	19.9
Residential Uses	29.1	6 .O
Transportation	1 82.4	37.7
Other	16.0	3.3

Source: California Air Resources Board, California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit, 2007.

* Emissions are for the forestry industry. Forests themselves are a sink for carbon dioxide, as photosynthesis removes carbon dioxide from the atmosphere.

Standards of Significance. California Environmental Quality Act (CEQA) guidelines provide that a Project would have a significant GHG impact if it would:

- GHG emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing missions of GHGs.

Impact Discussion

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less-than-Significant Impact. As stated above, there are no existing methodologies that address the significance of greenhouse gases (GHGs), a cumulative impact issue, emitted from an individual development Project and other sources. When dealing with air quality issues related to operation emissions, thresholds are usually compared to the net change in emissions compared to baseline conditions (normally existing conditions with no Project). In addition, there are currently no health-based standards that measure the threat GHGs, including CO2, pose on human health. CO2 is generally a global pollutant and ordinarily poses an indirect threat to human health because CO2 production, among other things, contributes to climate change. An individual Project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a Project may worsen a significant impact through its incremental contribution combined with the contributions of all other sources of GHG. In assessing cumulative impacts, it must be determined whether a Project's incremental effect is "cumulatively considerable." (See State CEQA Guidelines sections 15064[i][l] and 15130) To make this determination, the incremental impacts of the Project must be examined with and in the context of the effects of past, current, and probable future Projects.

In comparison to existing conditions, implementation of the proposed Project would increase vehicle emissions generated by mobile source as well as emissions generated by stationary sources, including natural gas and electricity consumption, and emissions generated from the use of consumer products. The proposed Project's amount of emissions, without considering other cumulative global emissions, would be insufficient to cause climate change. However, the proposed Project would be consistent with the state's goals of reducing GHG emissions to 1990 levels by 2020 and is consistent with the City of Lodi General Plan 2010 and accompanying EIR.

The policy directives described above in the Regulatory Setting discussion provide a framework for reducing greenhouse gas emissions in California and in the City. The Project must comply with Title 24 energy efficiency standards. Regulations stemming from AB 32 will result in reductions in emissions from major sources such as electrical power generation. It remains uncertain if these actions will be sufficient to counteract California's contribution to global climate change. However, additional analysis for this Project will not increase the certainty of any impact determination. Although quantification methods are available to calculate the

Project's contribution, due to the size of this Project and lack of a numeric threshold no quantification is provided.

A number of standards and policies have been incorporated into the City's General Plan that are applicable to the proposed Project that would serve to mitigate the Project's overall contribution to greenhouse gas emissions. Chapter 4, Community Design and Livability incorporates "Green Design" policies that seek to increase the energy efficiency of development Projects in the City. In addition, the Transportation goals provided in the General Plan promote increased pedestrian and multi-modal access, serving reduced auto use and thus a reduction in greenhouse gases emitted. All these requirements apply to the proposed Project.

b) *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

Less-than-Significant Impact. As stated previously, implementation of the proposed Project would not conflict with an applicable regional or local plans, policies or regulations adopted for the purpose of reducing the emissions of greenhouse gases. The proposed Project would be consistent with the State's goals of reducing GHG emissions to 1990 levels by 2020. As such, the proposed Project's contribution to climate change/worldwide GHG emissions would be less than significant.

Mitigation Measure GHG. Future development that could occur in the Project area following annexation would be built out over a period of years.

1. The proposed Projects shall be required, prior to final City approval, to implement a GHG reduction program that uses Transportation Systems Management, building design for energy conservation, water conservation techniques, solid waste reduction techniques or other green technologies to demonstrate compliance with the City's goal reduction in GHG emissions compared to normal operations.

FINDINGS

No significant impact is anticipated.

Sources

California Air Resources Board (CARB), *Air Quality and Land Use Handbook: A Community Health Perspective*, 2005.

California Air Resources Board (CARB), *Ambient Air Quality Standards,* last updated February, 2007.

California Air Resources Board, *California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit*, 2007.

San Joaquin Valley Air Pollution Control District (SJVAPCD), *Guide for Assessing and Mitigating Air Quality Impacts, Technical Document: Information for Preparing Air Quality Sections in EIRs,* Adopted August 20, 1998; January 10, 2002 revision.

San Joaquin Valley Air Pollution Control District (SJVAPCD), *District Air Quality Plans and Related Reports, Particulate Matter, and Ozone*, 2003.

San Joaquin Valley Air Pollution Control District (SJVAPCD), *Ambient Air Quality Standards and Valley Attainment Status,* 2005.

US Environmental Protection Agency, Inventory of US Greenhouse Gas Emissions and Sinks 1990-2006, 2008.

Issues		Potentially Significant Impact	Potentially Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
5.	**BIOLOGICAL RESOURCES** *Would the proposal:*				
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	■	☐	☐
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	■
c.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	■
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☐	☐	☐	■
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	■
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	■

Regulatory Setting

Federal Endangered Species Act (ESA)

The ESA protects fish and wildlife species and their habitats that have been identified by US Fish and Wildlife Services (USFWS) or the National Marine Fisheries Service (NMFS) as threatened or endangered. *Endangered* refers to species, subspecies, or distinct population segments that are in danger of extinction through all or a significant portion of their range. *Threatened* refers to species, subspecies, or distinct population segments that are likely to become endangered in the near future. In general, NMFS is responsible for protection of federally listed marine species and anadromous fishes, whereas other listed species are under

USFWS jurisdiction. Provisions of Sections 9 and 10 of the ESA may be relevant to the Project; these are summarized below.

Section 9: Prohibitions

Section 9 of the ESA prohibits the take of any fish or wildlife species listed under the ESA as endangered. Take of threatened species is also prohibited under Section 9, unless otherwise authorized by federal regulations.1 *Take* is defined by the ESA as intending "[to] harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." *Harm* is defined as "any act that kills or injures the species, including significant habitat modification." In addition, Section 9 prohibits removing, digging up, cutting, and maliciously damaging or destroying federally listed plants on sites under federal jurisdiction.

Section 10: Nonfederal Actions

In cases where a nonfederal entity is undertaking an action that does not have federal funding or require federal authorization, the take of listed species must be permitted by USFWS through the Section 10 process. If the proposed Project would result in the incidental take of a listed species, the applicant first must obtain an incidental take permit under ESA Section 10. To receive an incidental take permit, the nonfederal entity is required to prepare a habitat conservation plan that describes Project impacts and specifies conservation measures that avoid, minimize, and mitigate the Project's impact on listed species and their habitat.

The proposed Project would be a covered activity within the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) area. The SJMSCP, in accordance with ESA Section 10 (a)(l)(B) provides compensation for conversion of open space to non-open space uses that affect plant, fish, and wildlife species covered by the plan (San Joaquin Council of Governments 2000).

Federal Clean Water Act

The federal Clean Water Act (CWA) was enacted as an amendment to the federal Water Pollution Control Act of 1972, which outlined the basic structure for regulating discharges of pollutants to waters of the United States. The CWA serves as the primary federal law protecting the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. The Federal CWA is administered by the EPA and the USACE. USACE is responsible for regulating the discharge of fill material into waters of the United States (including lakes, rivers, streams, and their tributaries) and wetlands. Wetlands are defined for regulatory purposes as areas that are "inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil conditions"(Environmenta1 Laboratory 1987:13).

The discharge of dredged or fill material into waters of the United States is subject to permitting under CWA Section 404. Certification from the applicable Regional Water Quality Control Board (RWQCB) is also required when a proposed activity may result in discharge into navigable waters, pursuant to CWA Section 401 and EPA's Section 404(b)(1) guidelines. On june 5,2007, the EPA and the U.S. Department of the Army issued a memorandum titled Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos* v. *United States* & *Carabell* v, *United States* that states that the agencies will assert jurisdiction over the following categories of water bodies: traditional

navigable waters (TNWs), wetlands adjacent to TNWs, nonnavigable tributaries of TNWs that are relatively permanent, and wetlands that abut such tributaries (U.S. Environmental Protection Agency and U.S. Department of the Army 2007).

Presidential Executive Order 13186: Federal Migratory Bird Treaty Act
The MBTA (16 *U.S. Government Code* 703-7111 prohibits the take of any migratory bird or any part, nest, or eggs of any such bird. Under the act, *take* is defined as the action of or attempt to "pursue, hunt, shoot, capture, collect, or kill." This act applies to all persons and agencies in the United States, including f3deral agencies.

Executive Order CEO) 13186 for conservation of migratory birds (January 11,2001) requires that any Project with federal involvement address impacts of federal actions on migratory birds. The order is designed to assist federal agencies in their efforts to comply with the MBTA and does not constitute any legal authorization to take migratory birds. The order also requires federal agencies to work with USFWS to develop a memorandum of understanding (MOU). Protocols developed under the MOU must promote the conservation of migratory bird populations through the following means.

- Avoid and minimize, to the extent practicable, adverse impacts on migratory bird resources when conducting agency actions.
- Restore and enhance habitat of migratory birds, as practicable.
- Prevent or abate the pollution or detrimental alteration of the environment for the benefit of migratory birds, as practicable.

State Regulations
California Environmental Quality Act
CEQA is the regulatory framework by which California public agencies identify and mitigate significant environmental impacts. A Project normally is considered to result in a significant environmental impact on biological resources if it substantially affects a rare or endangered species or the habitat of that species; substantially interferes with the movement of resident or migratory fish or wildlife; or substantially diminishes habitat for fish, wildlife, or plants.

The State CEQA Guidelines define rare, threatened, or endangered species as those listed under CESA and ESA, as well as any other species that meets the criteria of the resource agencies or local agencies (e.g., CDFG-designated species of special concern, CNPS-listed species). The State CEQA Guidelines stipulate that the lead agency preparing an environmental impact report must consult with and receive written findings from CDFG concerning Project impacts on species that are listed as endangered or threatened. The effects of a proposed Project on these resources are important in determining whether the Project has significant environmental impacts under CEQA.

California Endangered Species Act
California implemented CESA in 1984. The act prohibits the take of endangered and threatened species; however, habitat destruction is not included in the state's definition of take. Under CESA, take is defined as an activity that would directly or indirectly kill an individual of a species, but the definition does not include harm or harass. Section 2090 requires state agencies to comply with endangered species protection and recovery and to promote conservation of these species. CDFG administers the act and may authorize take through Section 2081 agreements (except for species designated as fully protected). Regarding rare plant species, CESA defers to the CNPPA of 1977, which prohibits

importing, taking, and selling rare and endangered plants. State-listed plants are protected mainly in cases where state agencies are involved in Projects under CEQA. In these cases, plants listed as rare under the CNPPA are not protected under CESA but can be protected under CEQA.

California Fish and Game Code
Fully Protected Species
The California Fish and Game Code provides protection from take for a variety of species, referred to as fully protected species. Section 5050 lists fully protected amphibians and reptiles. Section 3515 prohibits take of fully protected fish species. Fully protected birds are listed in Section 35 11, and fully protected mammals are listed in Section 4700. The California Fish and Game Code defines take as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Except for take related to scientific research, all take of fully protected species is prohibited.

Sections 3503 and 3503.5
Section 3503 of the California Fish and Game Code prohibits the destruction of bird nests or eggs. Section 3503.5 prohibits the killing of raptor species and the destruction of raptor nests or eggs.

California Native Plant Protection Act
The CNPPA prohibits importation of rare and endangered plants into California, and take or sale of rare and endangered plants. CESA defers to CNPPA, which ensures that state-listed plant species are protected when state agencies are involved in Projects subject to CEQA. In this case, plants listed as rare under CNPPA are not protected under CESA, but rather under CEQA.

Porter-Cologne Water Quality Control Act
Section 13260 of the California Water Code requires "any person discharging waste, or proposing to discharge waste, in any region that could affect the waters of the state to file a report of discharge (an application for waste discharge requirements [WDRs])." Under the Porter-Cologne Water Quality Control Act definition, the term *waters* of *the state* is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." Although all waters of the United States that are within the borders of California are also waters of the state, the converse is not true-in California, waters of the United States represent a subset of waters of the state. Therefore, the State of California retains authority to regulate discharges of waste into any waters of the state, regardless of whether USACE has concurrent jurisdiction under CWA Section 404. If USACE determines a wetland or other water (e.g., drainage ditch) is not subject to regulation under CWA Section 404, water quality certification under CWA Section 401 is not required. However, the RWQCB may impose WDRs if fill material would be placed into waters of the state. In accordance with a preliminary jurisdictional determination approach, the seasonal wetlands and drainage ditches in the study area were interpreted to fall within the scope of USACE jurisdiction.

Local Regulations
San Joaquin County Multi-Species Habitat Conservation and Open Space Plan
The key purposed of the SJMSCP is to provide a strategy for balancing the need to conserve Open Space and the need to convert open space to other uses while protecting the region's agricultural economy; preserving landowner's property rights; providing for the long-term

management of plant, fish and wildlife species, especially special-status species; providing and maintaining multiple-use open spaces which contribute to the quality of life of the residents; and accommodating a growing population while minimizing costs to Project proponents and society. The SJMSCP addresses 97 species over more than 1,400 square miles. It encompasses all of the county except for federally owned lands and area encompassing those Projects not covered by the SJMSCP listed in Section 8.2.2. The SJMSCP provides compensation for the conversion of open space.

The SJMSCP provides compensation for the Conversion of Open Space to non-Open Space uses which affect the plant, fish and wildlife species covered by the Plan. The SJMSCP compensates for Conversions of Open Space for the following activities: urban development, mining, expansion of existing urban boundaries, non-agricultural activities occurring outside of urban boundaries, levee maintenance undertaken by the San Joaquin Area Flood Control Agency, transportation Projects, school expansions, non-federal flood control Projects, new parks and trails, maintenance of existing facilities for non-federal irrigation district Projects, utility installation, maintenance activities, managing Preserves, and similar public agency Projects.

Environmental Setting

This section is based on a biological assessment prepared by the firm of PBS&J dated September, 2008. This report is incorporated by reference into this Initial Study and is available for review at the City's Community Development Department, Planning Division during normal business hours.

The approximately 30-acre site consists of an abandoned golf driving range and agricultural land. Agricultural land is currently the most common vegetation type in the region, including row crops, orchards, and vineyards. Additional communities in the area include ruderal and urban habitats. A description of these community types found within or adjacent to the Project site is provided in the following paragraphs.

<u>Agricultural Land</u>

Half of the Project site is comprised of agricultural land. Currently, strawberries (*Fragaria ananassa*), corn (*Zea mayz*), squash (*Cucurbita* spp.), pea (*Fabaceae* spp.), several species of ornamental flowers and Vietnamese chili peppers are in production. The southern one third of the agricultural area appears to have been recently disked. Due to the heavily disturbed nature of this habitat type, only those wildlife species that have adapted to intensive disturbance regimes associated with farming are likely to occur in agricultural land. Wildlife species observed during the September 29, 2008 field survey conducted by PBS&J, included American crow (*Corvus brachyrhyncos*), Brewer's blackbird (*Euphagus cyanocephalus*), European starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*), mourning dove (*Zenaida macroura*), black phoebe (*Sayornis nigricans*), northern mockingbird (*Mimus polyglottos*), western scrub jay (*Aphelocoma coerulescens*), raccoon (*Procyon lotor*), black-tailed jack rabbit (*Lepus californicus*) and California ground squirrel (*Spermophilus beecheyi*). Other wildlife species expected to occur in the vicinity of the Project site include house mouse (*Mus musculus*), black rat (*Rattus rattus*), Norway rat (*Rattus norvegicus*), striped skunk (*Mephitis mephitis*), and opossum (*Didelphis virginiana*). A list of observed wildlife species is provided in Table 2.

Table 5-1 Project's Wildlife Species List	
Scientific Name	**Common Name**
Anatis rathvoni	Lady bug
Anna calypte	Anna's hummingbird
Aphelocoma californica	Western scrub jay
Apis mellifera	Honey bee
Artogeia rapae	White cabbage butterfly
Buteo lineatus	Red-shouldered hawk
Canis latrans	Coyote (scat)
Carduelis tristis	American goldfinch
Carpodacus mexicanus	House finch
Charadrius vociferus	Killdeer
Chondestes grammacus	Lark sparrow
Colaptes auratus	Northern flicker
Columbia livia	Rock dove
Corvus brachyrhynchos	American crow
Lepus californicus	Black-tailed jackrabbit
Melanerpes formicivorus	Acorn woodpecker
Mimus polyglottos	Northern mockingbird
Passer domesticus	House sparrow
Pentatomidae Family	Stink bug
Picoides nuttallii	Nuttall's woodpecker
Procyon lotor	Raccoon
Psaltriparus minimus	Bushtit
Sayornis nigricans	Black phoebe
Sayornis saya	Say's phoebe
Sceloporus occidentalis	Western fence lizard
Sialia mexicana	Western bluebird
Spermophilus beecheyi	California ground squirrel
Sturnella neglecta	Western meadowlark
Sturnus vulgaris	European starling
Thomomys bottae	Valley pocket gopher
Turdus migratorius	American robin
Vespinae Subfamily	Yellow jacket
Zenaida macroura	Mourning dove
Zonotrichia leucophrys	White-crowned sparrow
SOURCE: PBS&J, 2008	

Ruderal

The ruderal communities consist of introduced annual and perennial grasses and forbs associated with highly disturbed habitats. This community was found within the abandoned golf driving range and non-cultivated portions of the Project site. Plant species observed in this community include, Himalayan blackberry (*Rubus discolor*), Bermuda grass (*Cynodon dactylon*), wild radish (*Raphanus sativus*), Italian thistle (*Carduus pycnocephalus*), wild mustard (*Brassica* spp.), prickly lettuce (*Lactuca serriola*), milk thistle (*Silybum marianum*), common knotweed (*Polygonum arenastrum*), cheeseweed (*Malva parviflora*), field bindweed

(*Convolvulus arvensis*), horseweed (*Conyza canadensis*), and prickly sow-thistle (*Sonchus asper)*. A list of observed plant species is provided in Table 3. Wildlife species found in this habitat type would be similar to those found within agricultural habitats.

Urban

Urban habitats are those areas where the native vegetation has been cleared for residential, commercial, industrial, transportation or recreational structures. Developed areas include areas that have structures, paved surfaces, and horticultural plantings. Structures on the Project site include a small fruit stand located at the corner of Harney Lane and West Lane on the agricultural side, and a paved parking lot and club house located along Harney Lane on the golf driving range side.

Table 5-2: Project's Plant Species List

Scientific Name	Common Name
Acer palmatum	Japanese maple
Allium spp.	Onion
Amaranthus albus	Tumble weed
Avena fatua	Wild oats
Brassica oleracea var. botrytis	Broccoli
Brassica oleracea var. capitata	Cabbage
Brassica rapa	Birdsrape mustard
Brome spp.	Brome
Bromus diandrus	Rip-gut brome
Bromus rubens	Red brome
Capsicum frutescens	Bird's eye chili
Centaurea solstitialis	Yellow start thistle
Chenopodium album	Lamb's quarters
Citrullus lanatus var. lanatus	Watermelon
Conyza bonariensis	Asthma weed
Conyza canadensis	Horseweed
Croton setigerus	Dove weed
Cucurbita spp.	Squash
Cynodon dactylon	Bermuda grass
Cyperus eragrostis	Tall flatsedge
Deschampsia cespitosa	Tufted harigrass
Epilobium brachycarpum	Annual fireweed
Fabaceae spp.	Pea
Fragaria ananassa	Strawberry
Fraxinus velutina	Modesto ash
Lactuca serriola	Prickly lettuce
Lolium perenne	Perennial ryegrass
Lycopersicon spp.	Tomato
Malva parviflora	Cheeseweed
Panicum capillere	Witchgrass
Phalaris minor	Little seed canary grass
Poa pratensis	Kentucky bluegrass

Table 5-2: Project's Plant Species List	
Scientific Name	**Common Name**
Polygonum eranastrum	Common knotweed
Pyracantha coccinea	Scarlet firethorn
Quercus lobata	Valley oak
Raphanus sativus	Wild radish
Rubus discolor	Himalayan blackberry
Salix spp.	Willow
Salsola tragus	Russian thistle
Senecio vulgaris	Common groundsel
Silybum marianum	Blessed milk thistle
Tilia chordate	Tilia
Vitis spp.	Wine grape
Zea mayz	Corn
SOURCE: PBS&J, 2008	

Potential Wetlands

No wetlands were observed during the September 29, 2008 field survey conducted by PBS&J.

San Joaquin Multiple Species Conservation Plan

In an effort to protect sensitive and threatened species throughout San Joaquin County, the San Joaquin Council of Governments (SJCOG) prepared the San Joaquin County Multi-species Habitat Conservation and Open Space Plan (SJMSCP). The purpose of the SJMSCP is to provide a county-wide strategy for preserving open space, provide for the long-term management of plant, fish and wildlife species, especially those that are currently listed or may be listed in the future under the Federal Endangered Species Act (FESA) or the California Endangered Species Act (CESA), and to provide and maintain multiple-use open spaces that contribute to the quality of life of the residents of San Joaquin County. The City of Lodi has adopted the SJMSCP. The SJMSCP classifies the eastern half of the Project site as Category C Agricultural Habitat Open Spaces Pay Zone B (Agricultural) while the western half of the Project site is classified as Category A Exempt No Pay Zone.

Standards of Significant: A Project will have a significant impact if it:

- Results in a substantial adverse effect to any sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG or USFWS.
- Results in a substantial adverse effect on any riparian habitat or on federally protected wetlands as defined in Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means.
- Substantially interferes with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedes the use of native wildlife nursery sites.
- Conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

- Results in a substantial adverse effect, either directly or indirectly through habitat modifications, on any species identified as candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the CDFG or U.S. Fish and Wildlife Service (USFWS).
- Conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Impact Discussion

a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

Potentially Significant with Mitigation Incorporation. A search of the CNDDB and the California Native Plant Society Electronic Inventory of Rare and Endangered Plants conducted by PBS&J identified two plant species that occur in the vicinity of the Project site; Mason's lilaeopsis (*Lilaeopsis masonii*) and succulent owl's clover (*Castilleja campestris ssp. succulenta*). The Mason's lilaeopsis is typically found in riparian, freshwater-marsh, or brackish-marsh habitat, whereas the succulent owl's clover is typically found in vernal pools. Due to the high degree of disturbance on the Project site related to agricultural cultivation and golf driving range activities, and the fact that no riparian, freshwater marsh, brackish-marsh, or vernal pool habitat were found in the Project site, the site does not contain suitable habitat for any special-status plant species known to occur in the region.

According to the CNDDB a total of five special-status wildlife species are known to occur in the vicinity of the Project site. However, based on habitats present, special-status species with the potential to occur on the Project site and potentially be impacted by the proposed Project are the Swainson's hawk (*Buteo swainsoni*) and burrowing owl (*Athene cunicularia*).

Swainson's hawk is a state threatened species that breeds in stands with few trees in juniper-sage flats, riparian areas, or oak savannah adjacent to suitable foraging habitat such as grasslands, alfalfa, or grain fields with rodent populations. Threats to Swainson's hawk include development, which results in the loss of foraging and nesting habitat. The agricultural fields within and adjacent to the Project site represent suitable foraging habitat for Swainson's hawk.

Burrowing owl is listed as a state species of special concern. Burrowing owls feed on rodents, small reptiles, and large insects in annual grasslands, pastures, and ruderal vegetation. They breed between March and August in communal burrow colonies that they have taken over from ground squirrels and other burrowing mammals. Grasslands and open ruderal habitats along the proposed Project could provide suitable habitat for this species.

Potential nesting habitat for birds including Swainson's hawk and burrowing owl as well as other migratory bird species, protected under the Migratory Bird Treaty Act, occurs on the Project site. This habitat consists of trees within the Project site and ground squirrel burrows on the abandoned golf driving range. Activities associated with the construction of the proposed Project in close proximity to active nest sites (i.e., within 500 feet) or burrows could disturb nesting birds, if present.

In addition, Swainson's hawk, burrowing owls, and other raptors forage (search for food) over agricultural land and ruderal fields, which comprises the majority of the Project site. Swainson's hawks forage up to 10 miles from their nests and 30 recorded nests have been documented in the CNDDB within 10 miles of the Project site, the closest of which is located approximately one mile to the southwest. The California Department of Fish and Game (CDFG) recommends mitigation for Projects that result in the loss of Swainson's hawk foraging habitat within 10 miles of active nest sites.

Implementation of the proposed Project could result in direct impacts to some or all of the special-status wildlife species listed above, or in the disturbance of habitats that support these species, which would constitute a significant impact. However, implementation of the following mitigation measures would reduce these impacts to less-than-significant with mitigation incorporated.

MITIGATION MEASURES BIO:

1. **Swainson's Hawk Foraging Habitat.** *The Project applicant shall ensure that mitigation for loss of Swainson's hawk foraging habitat within San Joaquin County occurs through one of the following measures. Should measures b, c, or d be implemented, the Project applicant shall ensure that an appropriate number of acres (as approved by the California Department of Fish and Game [CDFG]) of agricultural land, annual grasslands, or other suitable raptor foraging habitat are preserved off site at a habitat preservation bank within San Joaquin County at a 1 to 1 (habitat lost to preserved) ratio.*

   i. The Project Site is located within the boundaries of the San Joaquin County Multi-species Habitat Conservation and Open Space Plan (SJMSCP). Half of the site is an abandoned golf driving range located in a "no-pay" zone and half is within the "agricultural habitat pay zone." As such, the Project applicant could seek coverage under the SJMSCP. Additionally, the Project applicant would be required to conduct "Incidental Take Minimization Measures," that for this site would likely include preconstruction surveys for nesting birds.

   or

   ii. Purchase of mitigation credits at an approved CDFG mitigation bank that is within San Joaquin County.

   iii. Payment of a mitigation fee to a habitat development and management company, through a negotiated agreement between said company, the Project applicant, and CDFG. The lands must be within 10 miles of the nearest Swainson's hawk nest (consistent with CDFG guidelines).

   iv. Purchase of conservation easements or fee title in San Joaquin County. This mitigation must occur within 10 miles of the nearest Swainson's hawk nest, unless otherwise approved by CDFG (consistent with CDFG Guidelines).

2. **Nesting Birds**. Between March 1 and September 15, the Project applicant shall have a qualified biologist conduct nest surveys no more than 30 days prior to any demolition/construction or ground disturbing activities that are within 500 feet of potential nest trees or suitable nesting habitat (i.e., trees, grassland). A pre-construction survey shall be submitted to CDFG that includes, at a minimum: (1) a description of the methodology including dates of field visits, the names of survey personnel with resumes, and a list of references cited and persons contacted; and (2) a map showing the location(s) of any bird nests observed on the Project site. If no active nests of Migratory Bird Treaty Act (MBTA) covered species are identified, then no further mitigation is

required. If active nests of protected bird species are identified in the focused nest surveys, the Project applicant shall take the following steps.

i. The Project applicant, in consultation with San Joaquin County and CDFG, shall delay construction in the vicinity of active nest sites during the breeding season (March 1 through September 15) while the nest is occupied with adults and/or young. A qualified biologist shall monitor any occupied nest to determine when the nest is no longer used. If the construction cannot be delayed, avoidance measures shall include the establishment of a non-disturbance buffer zone around the nest site. The size of the buffer zone shall be determined in consultation with the CDFG, but will be a minimum of 100 feet. The buffer zone shall be delineated with highly visible temporary construction fencing.

ii. No intensive disturbance (e.g., heavy equipment operation associated with construction, or use of cranes) or other Project-related activities that could cause nest abandonment or forced fledging, shall be initiated within the established buffer zone of an active nest between March 1 and September 15.

iii. If construction activities are unavoidable within the buffer zone, the Project applicant shall retain a qualified biologist to monitor the nest site to determine if construction activities are disturbing the adult or young birds. If abandonment occurs, the biologist shall consult with CDFG or U.S. Fish and Wildlife Service (who monitor compliance with the MBTA) for the appropriate salvage measures. The Project applicant will be required to fund the full costs of the salvage measures.

3. **Burrowing Owl.** The Project proponent shall hire a qualified biologist to conduct a pre-construction burrowing owl survey. If nesting owls are found, no disturbance shall be allowed within 160-feet of the active nest burrow between February 1 and August 31. Outside the nesting season, and/or upon confirmation by the qualified biologist, and in consultation with California Department of Fish and Game, that all young have fledged and left an active nest, burrowing owls present in the burrow shall be excluded from the burrow(s) by a qualified biologist through a passive relocation as outlined in the California Burrowing Owl Consortium's April 1993 Burrowing Owl Survey Protocol and Mitigation Guidelines. Once the burrows have been cleared, they must be hand-excavated and collapsed prior to Project construction.

4. **Pre-Construction Survey.** The Project proponent shall contact the San Joaquin County Council of Governments, Habitat Division, to schedule a pre-construction biological resources inventory survey. The said re-construction biological resources inventory survey shall occur 30-days prior to issuance of a building permit. They City shall not issue a building permit for grading, clearing, staging or any form of permit that would allow site disturbance. The City shall only issue a building permit after it receives a signed ITMM from the San Joaquin County Council of Governments, Habitat Division authoring site disturbance.

b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?*

No Impact. A significant impact may occur if riparian habitat or any other identified sensitive natural community were to be adversely modified. The Project area does not contain any riparian habitat or sensitive natural communities recognized by the CBDBB the are known to occur in the Project region. The proposed Project site is located within the City's Urban Service Boundary and is classified as a mixture of urban use and agricultural land, as defined by the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSHCP). No impact is anticipated.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No impact. A significant impact may occur if wetlands that are protected under federal regulation, as defined by Section 404 of the Clean Water Act, would be modified or removed. Preliminary site surveys have not evidenced the presence of potential wetlands, vernal pools or waters regulated by Section 404 of the Clean Water Act. However, further development of the Plan's drainage system will require review to ensure consistency with Section 404 of the Clean Water Act. No impact is anticipated.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact. A significant impact may occur if the proposed Project interferes or removes access to a migratory wildlife corridor or impedes the use of native wildlife nursery sites. The area north of the Project site lies within the City of Lodi and is currently developed. The area east, south and west is currently agricultural fields. Given the existing development north of the site and regular disturbance associated with agricultural uses, it is unlikely that the site would serve as a migratory corridor or a nursery site. Furthermore, the area where the Project site is located is not identified as a missing linkage on the California Wilderness Coalition California's Missing Linkages Report. Therefore the development of the proposed Project would result in ***no impact,***

e) Conflict with any local applicable policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. A significant impact may occur if the proposed Project would cause an impact that was inconsistent with local regulations pertaining to biological resources, including protected trees. The City of Lodi Municipal Code does not contain any policies protecting biological resources, therefore no impact would occur.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. A significant impact may occur if the proposed Project were inconsistent with mapping or policies in any conservation plans of the types cited. In an effort to protect sensitive and threatened species throughout San Joaquin County, SJCOG prepared the SJMSCP. The purpose of the SJMSCP is to provide for the long-term management of plant, fish and wildlife species, specially those that are currently listed or may be listed in the future under the FESA or CESA, and to provide and maintain multiple-use open space that contributes to the quality of life of residents of San Joaquin County. The City of Lodi has adopted the SJMSCP and participation by the Project in the plan is required by the City. Therefore, the proposed Project would comply with the SJMSCP, and no impact would occur.

FINDINGS

No significant impact is anticipated with incorporation of the above mentioned mitigation measures.

Sources:

California Wilderness Coalition. *California's Missing Linkages Restoring Connectivity to the California Landscape.* Available online at: http://www.calwild.org/resources/index.html

City of Lodi.. *Final Environmental Impact Report for the City of Lodi General Plan*. Prepared by Dytte & Bhatia, Inc., April 2010.

San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP).

United States Environmental Protection Agency. Region 9: Cleanup in the Pacific Southwest, Cleanup Sites in California. Available online (http://www.epa.gov/region09/cleanup/california.html)

United States, Department of the Interior, Fish & Wildlife Service. National Wetlands Inventory. Wetlands Mapper, January 5, 2009. Available online at http://www.fws.gov/wetlands/data/Mapper.html.

Blank Page

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
6.	**CULTURAL RESOURCES** *Would the Project:*				
	a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	■	☐
	b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	■	☐
	c. Directly or indirectly destroy a unique paleontological resource or unique geologic feature?	☐	☐	■	☐
	d. Disturb any human remains, including those interred outside of formal cemeteries.	☐	☐	■	☐

Regulatory Setting

California Environmental Quality Act

CEQA requires that public agencies (in this case, the City) that finance or approve public or private Projects must assess the effects of the Project on cultural resources. Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, or scientific importance. CEQA requires that if a Project would result in significant effects on important cultural resources, alternative plans or mitigation measures must be considered; only significant cultural resources, however, need to be addressed. Therefore, prior to the development of mitigation measures, the importance of cultural resources must be determined. The steps that are normally taken in a cultural resources investigation for CEQA compliance are:

- identify cultural resources;
- evaluate the significance of resources;
- evaluate the impacts of a Project on significant cultural resources; and
- develop and implement measures to mitigate the impacts of the Project only on significant resources, namely historical resources and unique archaeological resources.

The State CEQA Guidelines define three ways that a cultural resource may qualify as a historical resource for the purposes of CEQA review:

1. if the resource is listed in or determined eligible for listing in the CRHR;
2. if the resource is included in a local register of historical resources, as defined in Public Resources Code (PRC) 5020.1(k), or is identified as significant in an historical resource survey meeting the requirements of PRC 5024.1Cg) unless the preponderance of evidence demonstrates that it is not historically or culturally significant; or
3. the lead agency determines the resource to be significant as supported by substantial evidence in light of the whole record (14 California Code of Regulations [CCR] 15064.5[a]).

A cultural resource may be eligible for inclusion in the California Register of Historical Resources (CRHR) if it:

- is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- is associated with the lives of persons important in our past;
- embodies the distinctive characteristics of a type, period, region, or method of construction, represents the work of an important creative individual, or possesses high artistic values; or has yielded, or may be likely to yield, information important in prehistory or history.

In addition, CEQA distinguishes between two classes of archaeological resources: archaeological resources that meet the definition of a historical resource as above, and "unique archaeological resources." An archaeological resource is considered unique if it:

- is associated with an event or person of recognized significance in California or American history or of recognized scientific importance in prehistory;
- can provide information, that is of demonstrable pubic interest and is useful in addressing scientifically consequential and reasonable research questions; or
- has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind (PRC 21083.2).

Lodi General Plan

The Conservation Element of the Lodi Draft General Plan addresses cultural resources with the following goals.

C-G5: Encourage the identification, protection, and enhancement of archaeological resources.

C-G6: Preserve and enhance districts, sites, and structures that serve as significant, visible connections to Lodi's social, cultural, economic, and architectural history.

The following policies are pertinent to the proposed Project.

C-P14: In the event that archaeological/paleontological resources are discovered during site excavation, the City shall required that grading and construction work on the Project site be suspended until the significance of the features can be determined by a qualified archaeologist/paleontologist. The City will require that a qualified archaeologist/paleontologist make recommendations for measures necessary to protect any site determined to contain or constitute a historical resource, a unique archaeological resource, or a unique paleontological resource or to undertake data recovery, excavation, analysis, and curation of archaeological/paleontological materials. City staff shall consider such recommendations and implement them where they are feasible in light of Project design as previously allowed by the City.

C-PIS: If any human remains are discovered or recognized in any location on the Project site, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

- The San Joaquin County Coroner/Sheriff has been informed and has determined that no investigation of the cause of death is required; and
- If the remains are of Native American origin: (1) the descendants of the deceased Native Americans have made a timely recommendation to the

landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or (2) the Native American Heritage Commission was unable to identify a descendant or the descendant failed to make a recommendation within 24 hours after being notified by the Commission.

Policies C-PI6 through C-P21 address the preservation, maintenance, recording, and evaluation of historic buildings, structures, and districts.

Survey and Records Search

This section of the Initial Study is based on a site-specific survey conducted by PBS&J, Inc., dated September 2008. This report is hereby incorporated by reference and is available for review at the Community Development Department, Planning Division during normal business

A PBS&J archaeologist conducted a Phase I archaeological survey on September 9, 2008 to identify historical resources or unique archaeological resources within the Project site.

The following PBS&J personnel conducted the fieldwork:

- Jesse Martinez, B.A. Anthropology, 11 years of experience in California and Great Basin archaeology.

The Project site was systematically surveyed using transects spaced 15 meters apart. The eastern half of the Project site consists primarily of agricultural fields. The surface of the northeast corner of this section is covered with imported gravels. An operating fruit stand is located in the graveled area. The western half of the Project site consists of a former golf driving range which has seen extensive surface alteration. The northern half of this section includes a paved parking area, a trailer, and metal canopy. No archaeological resources or historical resources were encountered during the survey.

PBS&J requested a confidential records search of the Project site from the Central California Information Center (CCIC) of the California Historical Resources Information System in September 2008. The records search included a review of the National Register of Historic Places, the California Historic Resources Inventory, California Historical Landmarks, California Points of Historical Interest, the Historic Property Data File, the Archaeological Determinations of Eligibility, the California Department of Transportation State and Local Bridge Survey, a 1907 Government Land Office plat, and the *Survey of Surveys* (1989). The CCIC has record of one previous archaeological study within the Project site conducted in 2000 and which included the western side of West Lane. The records search did not identify any recorded Native American or historic-era cultural resources on the Project site.

PBS&J requested a search of the Native American Heritage Commission (NAHC) sacred lands database in October 2008 to determine if any Native American cultural resources are present on or within the vicinity of the Project site. The NAHC response letter stated that the

sacred lands database failed to indicate the presence of Native American resources on or within the immediate vicinity of the Project site. The NAHC letter included a list of Native American organizations and individuals who may have knowledge of cultural resources on or within the vicinity of the Project site. As requested by the NAHC, letters that included a brief description of the proposed Project and a Project map were sent to each organization/individual identified on the NAHC list. The NAHC also requests that follow-up phone calls be made to the Native Americans if no response is given. As of the preparation of this initial study, no Native American individuals or organizations have provided information regarding cultural resources or Native American properties on or within the vicinity of the Project site.

Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be "historical resources" for purposes of CEQA unless a preponderance of evidence indicates otherwise (Public Resources Code, section 5024.1 and California Code of Regulations, Title 14, section 4850). Unless a resource listed in a survey has been demolished, lost substantial integrity, or there is a preponderance of evidence indicating that it is otherwise not eligible for listing, a lead agency should consider the resource to be potentially eligible for the CRHR. Section 21083.2 requires agencies to determine whether proposed Projects would have effects on "unique archaeological resources."

Standards of Significance. The Project would have a significant impact if one or more of the following were to occur:

- Eliminate important examples of major periods of California history or prehistory;
- Disrupt, alter, or adversely affect a prehistoric or historic archeological site or a property;
- Result in an adverse physical or aesthetic change to a prehistoric or historic building, structure or object;
- Potentially cause a physical change that would affect unique ethnic cultural values; or
- Have the potential to cause damage to an important archeological resource as defined in Section 15064.5 of the CEQA Guidelines, as follows:
    - Is associates with an event or person of recognized significance in California or American history, or recognized scientific importance in prehistory;
    - Can provide useful information which is both of demonstrable public interest and useful in addressing consequential and reasonable or archeological research questions;
    - Has a special or particular quality such as oldest, best example, largest or last surviving example of its kind;
    - Is at least 100 years old and possesses substantial stratigraphic integrity; and
    - Involves important research questions that historical research has shown can be

Impact Discussion

a) *Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?*

Less than Significant. A significant impact would occur if the Project caused a substantial adverse change to a historical resource through demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired.

No historical resources as defined in CEQA Guidelines section 15064.5 were identified in the records search performed by the CCIC, and none were encountered during the archaeological survey conducted for the proposed Project. Therefore, the Project would have less than significant impact on historical resources as defined by CEQA

b) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

Less than Significant. A significant impact would occur if the Project causes a substantial adverse change to an archaeological resource through demolition, construction, conversion, rehabilitation, relocation, or alteration. No archaeological resources were identified in the records search performed by the CCIC nor were any archaeological resources encountered during the archaeological survey performed for the proposed Project. The absence of archaeological resources identified in the records search or during the pedestrian survey does not, however, preclude the possibility of subsurface archaeological resources being present on the Project site. Any ground disturbing activities performed for the proposed Project could possibly disturb previously unidentified archaeological resources. Therefore, potential impacts to archaeological resources are considered potentially significant. Implementation of Mitigation Measure CR-1 would ensure that any previously unidentified archaeological resources encountered during ground disturbing activities for the proposed Project would be managed in accordance with applicable regulations. Therefore, the impact on archaeological resources is considered less than significant with mitigation incorporated.

MITIGATION MEASURES CUL:

1. If evidence of an archaeological site or other suspected historical resource as defined in CEQA Guidelines section 15064.5, including midden, that could conceal material remains (e.g., worked stone, fired clay vessels, faunal bone, hearths, storage pits, or burials) are discovered during Project-related earth-moving activities, all ground-disturbing activity within 100 feet of the resources shall be halted and the City of Lodi shall notified within 24 hours of the discovery. The Project applicant shall hire a qualified archaeologist to assess the significance of the find. Any identified cultural resources shall be recorded on the appropriate DPR 523 (A-L) forms and filed with the Central California Information Center. If the resource is a historical resource or unique archaeological resource which cannot be avoided, a qualified archaeologist shall prepare a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the resource.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant. A significant impact may occur if grading or excavation activities associated with the proposed Project would disturb paleontological resources or geologic features that exist within the Project site. No paleontological resources or unique geologic features have been noted on the surface of the Project site. The likelihood of paleontological resources or unique geologic features being present subsurface within the boundaries of the proposed Project is unlikely given the rapid rate of deposition in the area. The possibility exists, however, that previously unidentified paleontological resources could be encountered during ground-disturbing activities associated with the proposed Project and therefore is considered a potentially significant impact if mitigation measures are not implemented. Implementation of Mitigation Measure CR-2 would ensure that any previously unidentified paleontological resources encountered during ground-disturbing activities for the proposed Project would be managed in accordance with applicable regulations. Therefore, the impact on paleontological resources is considered less than significant with mitigation incorporated.

MITIGATION MEASURES CUL:

2. Should paleontological resources be identified on the Project site during any ground disturbing activities related to the Project, all ground disturbing activities within 100 feet of the discovery shall cease and the City of Lodi shall be notified within 24 hours of the discovery. The Project applicant shall retain a qualified paleontologist to provide an evaluation of the find and to prescribe mitigation measures to reduce impacts to a less-than-significant level. In considering any suggested mitigation proposed by the consulting paleontologist, the Project applicant shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, Project design, costs, specific plan policies and land use assumptions, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the Project site while mitigation for paleontological resources is carried out.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant. A significant impact may occur if grading or excavation activities associated with the proposed Project would disturb previously interred human remains. No human remains were encountered during the archaeological survey and the records search conducted by the CCIC did not identify any previously discovered human remains within the boundaries of the proposed Project. The CCIC records search did note that human remains have been found just outside the quarter-mile radius of the Project boundary search that was requested. Disturbing human remains, either in a formal cemetery or disarticulated, would be considered a significant impact under CEQA Guidelines §10564.5. Implementation of Mitigation Measure CR-3 would ensure that that any human remains encountered during activities associated with the proposed Project would be managed in accordance with applicable regulations. Therefore, the impact on human remains is considered less than significant with mitigation incorporated.

MITIGATION MEASURES CUL:

3. If human remains (including disarticulated or cremated remains) are discovered at any Project construction sites during any phase of construction, all ground-disturbing activity within 100 feet of the resources shall be halted and the City of Lodi and the San Joaquin County coroner shall be notified immediately. If the remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The Project applicant shall retain a professional archaeologist with Native American burial experience to conduct a field investigation of the specific site and consult with the Most Likely Descendant, if any, identified by the NAHC. As necessary, the archaeologist may provide professional assistance to the Most Likely Descendant, including the excavation and removal of the human remains. The Project applicant will be responsible for approval of recommended mitigation as it deems appropriate, taking account of the provisions of state law, as set forth in CEQA Guidelines section 15064.5(e) and Public Resources Code section 5097.98. The Project applicant shall implement approved mitigation before the resumption of ground-disturbing activities within 100 feet of where the remains were discovered.

FINDINGS

Implementation of the mitigation measures described in the Cultural Resources section would reduce impacts to air quality less than significant.

Sources:

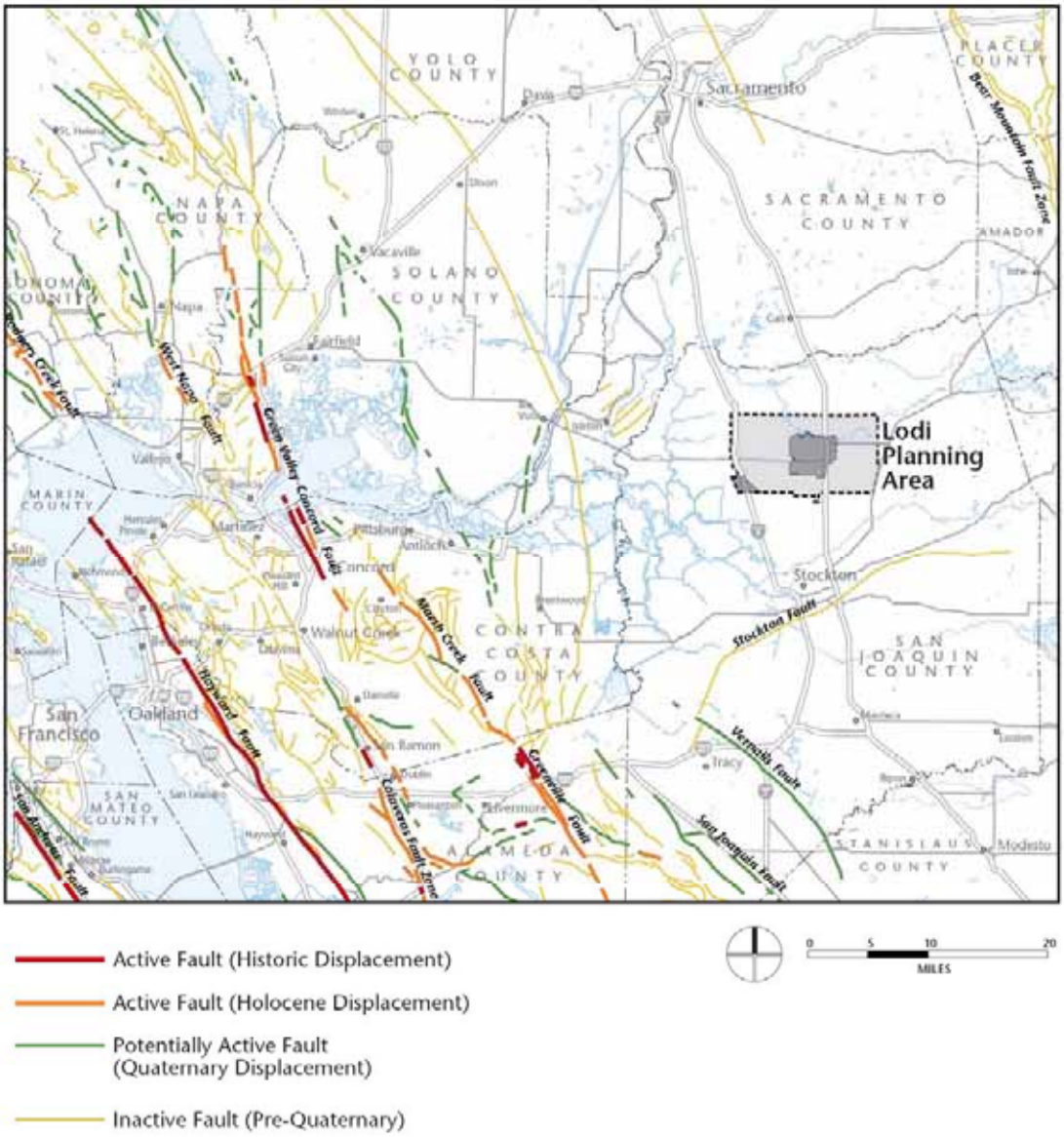
City of Lodi. *Final Environmental Impact Report for the City of Lodi Draft General Plan*. Prepared by Dytte and Bhatia, Inc., April 2010.

_____. *City of Lodi General Plan Policy Document.* Prepared by by Dytte and Bhatia, Inc., April 2010.

Blank Page

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
7.	**GEOLOGY AND SOILS.** *Would the Project:*				
a.	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i.	Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	■	☐
ii.	Strong seismic ground shaking?	☐	☐	■	☐
iii.	Seismic-related ground failure, including liquefaction?	☐	☐	■	☐
iv.	Landslides?	☐	☐	☐	■
b.	Result in substantial soil erosion, or the loss of topsoil?	☐	☐	■	☐
c.	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	■	☐
d.	Be located on expansive soils, as defined in Table 18-1-13 of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	■	☐
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	■

Exhibit 7-1: Regional Faults



Regulatory Setting

Alquist-Priolo Earthquake Fault Zoning Act

California's Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) (PRC 2621 et seq.), enacted in 1972 as the Alquist-Priolo Special Studies Zones Act and renamed in 1994, is intended to reduce the risk to life and property from surface fault rupture during earthquakes. The Alquist- Priolo Act prohibits the location of most types of structures intended for human occupancy across the traces of active faults and strictly regulates construction in the corridors along active faults (Earthquake Fault Zones). It also defines criteria for identifying active faults, giving legal weight to terms such as active, and

establishes a process for reviewing building proposals in and adjacent to Earthquake Fault Zones.

Under the Alquist-Priolo Act, faults are zoned, and construction along or across them is strictly regulated if they are "sufficiently active" and "well-defined." A fault is considered sufficiently active if one or more of its segments or strands show evidence of surface displacement during Holocene time (defined for purposes of the act as referring to approximately the last 11,000 years). A fault is considered well-defined if its trace can be clearly identified by a trained geologist at the ground surface or in the shallow subsurface, using standard professional techniques, criteria, and judgment (Hart and Bryant 1997).

Seismic Hazard Mapping Act

Like the Alquist-Priolo Act, the Seismic Hazards Mapping Act of 1990 (PRC Section 2690-2699.6) is intended to reduce damage resulting from earthquakes. Whereas the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including strong groundshaking, liquefaction, and seismically induced landslides. Its provisions are similar in concept to those of the Alquist-Priolo Act: the state is charged with identifying and mapping areas at risk of strong groundshaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development within mapped Seismic Hazard Zones.

Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development. Specifically, cities and counties are prohibited from issuing development permits for sites within Seismic Hazard Zones until appropriate site-specific geologic or geotechnical investigations have been carried out, and measures to reduce potential damage have been incorporated into the development plans.

Lodi General Plan

The Conservation Element and the Safety Element of the Draft General Plan includes a number of policies related to geology, seismicity, and soils.

C-G2: Maintain the quality of the Planning Area's soil resources and reduce erosion to protect agricultural productivity.

C-P6: Require new development to implement measures that minimize soil erosion from wind and water related to construction and urban development. Measures may include:

- Construction techniques that utilize site preparation, gracing, and best management practices that provide erosion control and prevent soil contamination.
- Tree rows or other windbreaks shall be used within buffers on the edge of urban development and in other areas as appropriate to reduce soil erosion.

S-G-2: Prevent loss of lives, injury, illness, and property damage due to flooding, hazardous materials, seismic and geological hazards, and fire.

S-P20: Require soils reports for new Projects and use the information to determine appropriate permitting requirements, if deemed necessary.

S-P22: Require new development to include grading and erosion control plans prepared by a qualified engineer or land surveyor.

Site Characteristics
The Project sites are located in the southern portion of the Sacramento Valley, which is bordered by the Sierra Nevada Range to the east and the Diablo Range tier of the Coast Ranges to the west. Large coalescing alluvial fans have developed along each side of the valley. The larger and more gently sloping fans occur on the east side and consist of deposits derived from rock sources in the Sierra Nevada. This region is characterized by a 400-mile long and 50-mile-wide northwest-southeast trending valley. The valley has been filled with a thick sequence of marine and nonmarine sediments from the late Jurassic to Holocene. The uppermost strata of the valley consist of alluvial, flood and delta plains of two major rivers (Sacramento and San Joaquin rivers) and their tributaries. The Sacramento-San Joaquin Delta is located west of the Project sites.

The valley deposits are derived from the Coast Ranges to the west and the Sierra Nevada to the east. Granitic and metamorphic rocks outcrop along the eastern and southeastern flanks of the valley. Marine sedimentary rocks outcrop along most of the western, southwestern, southern and southeastern flanks; and volcanic rocks and deposits outcrop along the northeastern flanks of the valley. The valley geomorphology includes dissected uplands, low alluvial plains and fans, river flood plains and channels, and overflow lands and lake bottoms.

General Site Conditions:
This section of the Initial Study is based on an analysis of local geologic conditions conducted by the firm of Neil O. Anderson and Associates dated September 2008, which is included as Attachment 1 and included by reference into this Initial Study. The geological survey is incorporated with other technical

Neil O. Anderson and Associates conducted site investigation and found that the site consisted of an abandon golf course and agricultural land located at the west and east half of the property, respectively. The west half of the property is covered with low to medium grass and weed growth. There are two metal storage containers and one old single story office building located at northeast corner and north side of the golf course, respectively. The east half of the property contains row crops such as strawberries along with low weed growth. There are also several unpaved roads that are contained on the east half of the property. The site is bordered to the north by Harney Lane, to the east by West Lane, to the south by agricultural land, and to the west by a vineyard. There is also an unpaved road that separates the site from the agriculture land to the south and vineyard to the west.

Geologic Setting. A geologic map of the area was reviewed and indicated the surface soils are described as Pleistocene Age arkosic alluvium from the upper member of the Modesto Formation (Qm2). The existing topography of the site slopes gently towards the southwest from approximately 30.5 feet above mean seal level in the northeast portion of the site to approximately 26 feet above mean sea level in the southwestern corner of the site. Ground water was not encountered in any of the borings taken. No stream channels cross the site.

Seismic Conditions. The closest active fault with a Maximum Magnitude of 6.6 with a slip rate of 2 millimeters per year is the Greenville fault zone located a distance of 54 kilometers

from the site. A significantly more active fault with a Maximum Magnitude of 6.7 and a slip rate of 9 millimeters per year is the Hayward fault located at a distance of 84 kilometers.

Standards of Significance

The following standards of significance are used to assess potential environmental impacts related to geological, landform and topographic issues of the proposed Project:

- Exposure of people and property to the risk of harm from geological hazards and/or soil or seismic conditions;
- Location of the Project site in an Earthquake Safety Zone (formerly Alquist-Priolo Seismic Study Zone), an active fault or an area characterized by surface rupture that could be related to fault activity;
- Increases over present levels of soil erosion.

Impact Discussion

a) *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*

i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

Less than significant. A significant impact may occur if the proposed Project resulted in or exposed people to adverse effects involving fault rupture, such as from placement of structures or infrastructure within a state-designated Alquist-Priolo Earthquake Fault Zone or other designated fault zone. The Project would not expose people or structures to potential substantial adverse effects involving surface rupture. Ground surface rupturing along fault lines is an important seismic consideration for properties in California. The purpose of the Alquist- Priolo Earthquake Fault Zoning Act is to mitigate the hazard of surface faulting by preventing the construction of buildings used for human occupancy over an area with known faults. The site is not located within a delineated Alquist-Priolo Earthquake Fault Zone, as no faults are known to underlie the area. Impacts associated with seismic hazards would generally be addressed through adherence to applicable regulations (i.e., California Building Code) and design, grading, and structural recommendations identified in the Preliminary Geotechnical Investigation. As such, impacts would be less than significant.

ii) *Strong seismic ground shaking?*

Less Than Significant. A significant impact may occur if the proposed Project results in or exposes people to adverse effects involving strong ground shaking from fault rupture or seismic hazards. There is no record of any seismic activity originating in the City of Lodi other than tremors on the west side of the San Joaquin Valley, close to the Ortigalita Fault. All of California, including the planning area, is subject to earthquake risks. The greatest geologic hazard in the City of Lodi is the structural danger posed by ground shaking from earthquakes outside the area. The Modified Mercalli Intensity Scale is a commonly used scale used to judge the severity of earthquake effects. Intensity ratings are expressed as Roman numerals between I at the low end (i.e. people do not feel any earth movement) and XII at the high end (i.e., almost everything is destroyed). The

maximum expected earthquake intensity to be expected in the Lodi area would correspond to a Modified Mercalli Intensity VIII, or possibility higher. During an intensity VIII event, some damage would occur to well-made structures and chimneys; some towers would fall; and poorly constructed or weak structures would be heavily damaged. An earthquake with an intensity of VIII would be most probable in areas where the water table is most shallow in proximity to the Mokelumne River. Where the water table is deeper than 30 feet, which is throughout most of the General Plan area, a maximum intensity of only VII would be more reasonably expected. In such an earthquake, damage in well-built structures would be slight. The adverse effects of seismically-induced ground shaking on future development and its users would be reduced to generally accepted levels by completing the Project design and construction in conformance with current best standards for earthquake resistant construction in accordance with the CBC and City Code. Implementation of the following mitigation measures will ensure that site specific conditions are appropriately addressed and that no significant impacts related to seismic conditions result.

MITIGATION MEASURE GEO:

1. Each Project's conditions of approval shall require the Project be designed according to the most recent California Building Code and UBC Seismic Zone 3 requirements, applicable local codes, and be in accordance with the generally accepted standard for geotechnical practice for seismic design in Northern California.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant. A significant impact may occur if the Project were to result in or expose people to adverse effects involving seismic-related ground failure from liquefaction and other geologic hazards. Liquefaction is a form of earthquake-induced ground failure that occurs primarily in relatively shallow, loose, granular, water-saturated soils. The potential for liquefaction is recognized throughout the San Joaquin Valley where unconsolidated sediments and a high water table coincide. Areas which have the greatest potential for liquefaction are those areas in which the water table is less than 50 feet below the ground surface and soils are predominantly clean, comprised of relatively uniform sands and are of loose to medium density. Soils on the Project site consist of Tokay fine sandy loam and Tokay-Urban land complex soils. The probability of liquefaction occurring on the Project site is considered to be low as these soils are well drained and the depth of groundwater underneath the site is 50 feet or greater. Compliance with California seismic design requirements would ensure the Project site would not expose persons or property to liquefaction hazards. As such, potential impacts are considered less than significant.

MITIGATION MEASURE GEO:

2. Prior to the approval of grading plans, the Project applicant shall perform design-level geotechnical investigations and incorporate all recommendations into the Project construction documents and grading plans.

iv) Landslides?

No Impact. A significant impact may occur if the Project results in or exposes people to adverse effects involving landslides. Slope stability hazards are nonexistent and present no risk in the City of Lodi. The Project site is located in an area of generally level terrain that would not produce a landslide. Average grade within the Project site is between zero and five degrees. Further, according to the Official Maps of Seismic Hazard Zones provided by the State of California Department of Conservation, the Project site is not located within an earthquake-induced landslide zone, which is defined as an area where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacement. As a result, no impacts related to landslides would occur.

b) Result in substantial soil erosion or the loss of topsoil?

Less than Significant. Construction of future buildings are related improvements within the Project area following completion of annexation could result in soil erosion. Further impacts could result from increased impervious surfaces in areas designated for future development. Typically, erosion is caused by one of three things: wind, water, and tillage. Based on the topography of the Project site, it may be subject to occasional high wind conditions and half the site is already subject to regular watering and tilling. Development of the proposed Project has the potential to subject a large area to further wind and water erosion during the construction phase. All future construction Projects will be required to adhere to surface water quality standards as enforced by the City of Lodi.

As a normal and standard condition of approval for future development proposals, applicants will be required to prepare and have approved individual Stormwater Pollution Prevention Plans (SWPPPs) that mandate construction and post-construction water quality provisions, including but not limited to erosion control plans during construction, installation of biofilters and/or mechanical cleansing of stormwater run-off and similar elements. Further, future development of the site would be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit from the California Water Resources Control Board which would require the preparation of a plan to address the potential for soil erosion during construction and the implementation of Best Management Practices (BMPs) to control soil erosion. Therefore, impacts with regards to erosion would be less than significant.

MITIGATION MEASURE GEO:

3. Prior to issuance of a grading or development permits, the Project proponent(s) shall obtain a National Pollutant Discharge Elimination System (NPDES) permit from the California Water Resources Control Board and a copy of the permit shall be provided to the City prior to or along with the first building permit submitted for the Project.

4. Prior to issuance of grading or development permits, applicant(s) shall retain a qualified geologic/geotechnical consultant to prepare detailed, design-level geotechnical investigations including an appropriate number of borings, test pits, trenches and laboratory testing to address final Project design issues. Such geotechnical reports shall be appropriately detailed to address final Project

construction requirements and should conform to applicable San Joaquin County and City of Lodi standards. Where appropriate, specific measures shall be depicted on plans prepared by the geotechnical engineer of record or on plan sheets included with final grading plans to reduce any soil hazards to an acceptable level, including the potential for landslides, shrink-swell potential, liquefaction, differential settlement and other similar hazards.

c) *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

Less than Significant. As discussed previously in "Setting," the planning area is essentially flat and topographically featureless, presenting very little risk of landslide or later spreading subsidence. Soil conditions and a very low water table decrease the risk of liquefaction. Furthermore, according to the California Department of Mines and Geology, the Project site is not located in a liquefaction area (historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacement). Therefore, implementation of the proposed Project would not expose people and/or structures to potential substantial adverse effects due to soil instability including the risk of loss, injury, or death. In addition, compliance with CBC, the City's grading permit and implementation of recommendations in the site-specific geotechnical investigation would reduce hazards associated with unstable soils to below a level of significance.

d) *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?*

Less than significant. Expansive soils typically have a high clay content and high shrink-swell potential. Shrinking and swelling of soils underlying a Project area may cause structures to become physically unsound or walkways to buckle and become dangerous or difficult to navigate. A significant impact may occur if the proposed Project is built upon expansive soils without proper site preparation or design features to provide adequate foundations for Project buildings, thereby posing a hazard to life and property.

Subsidence from natural gas or groundwater withdrawals in the Lodi area is not considered to be a significant hazard. As discussed above, soils on the Project site consist of Tokay fine sandy loam and Tokay-Urban land complex soils. The shrink-swell potential of these soils is not high; the site is not designated as "expansive" on the 1999 San Joaquin County Expansive Soils Map. In addition, the proposed Project would be required to adhere to recommendations in the Preliminary Geotechnical Investigation prepared for the proposed Project, meet the City's design standards for grading and comply with the applicable regulations (i.e., Uniform Building Code). With adherence to the recommendations in the in the geotechnical study and applicable regulations, impacts with regards to unstable and expansive soils is less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Less than Significant. A significant impact may occur if the proposed Project is built on soils that are incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems and such a system is proposed. The Plan proposes to provide a wastewater disposal system to the planning area, therefore it is anticipated that there will be no need for an in-ground septic tank system. Sanitary sewer service to the Project site would be provided by the City of Lodi. Therefore, no impact would occur.

FINDINGS

The Project would result in less than significant impact with incorporation of the mitigation measures required above.

Sources:

California Geological Survey (CGS), Probabilistic Seismic Hazards Mapping Ground Motion Page, http://redirect.conservation.ca.gov/cgs/rghm/psha/pshamap.asp, accessed February 25, 2010.

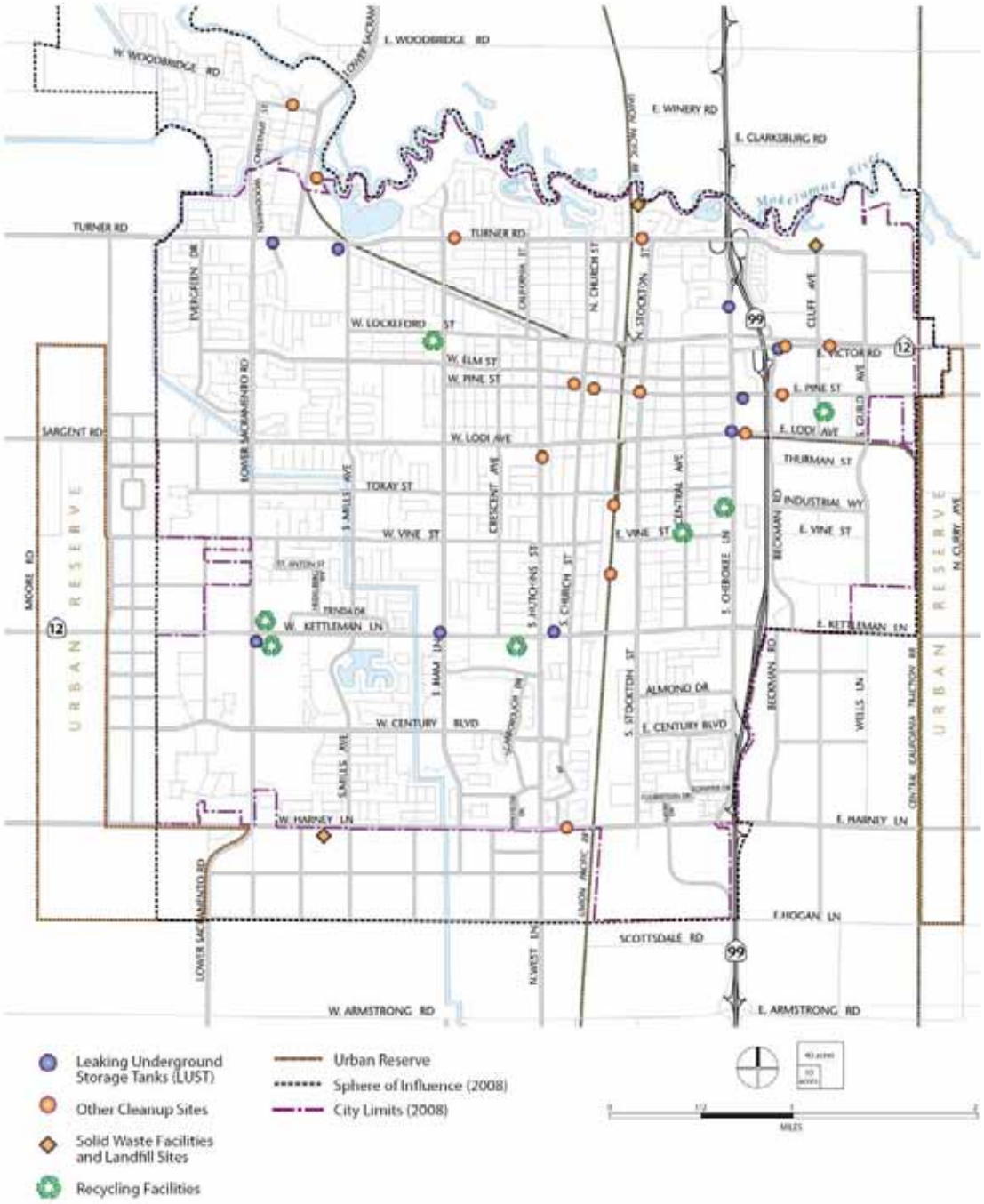
City of Lodi, *City of Lodi General Plan 2010* , adopted April 2010. Safety Element. pg. 8-9.

Natural Resources Conservation Service, Web Soil Survey, **HTTP://WEBSOILSURVEY.NRCS.USDA.GOV/APP/WEBSOILSURVEY.ASPX**, accessed July, 2010.

County of San Joaquin, *County of San Joaquin General Plan 1992*. adopted in 1992. Figure III.A-2.

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
8.	**HAZARDS AND HAZARDOUS MATERIALS.** *Would the Project:*				
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	■	☐
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	■	☐
c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	■	☐
d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	■	☐
e.	For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project area?	☐	☐	■	☐
f.	For a Project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area?	☐	☐	■	☐
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	■	☐
h.	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	■

EXHIBIT 8.1 - POTENTIAL HAZARDOUS MATERIAL SITES



Regulatory Settings

Hazardous materials are substances which can harm people or the environment, can impair human health if contacted, ingested, or inhaled. Such processes are classified as hazardous because of materials they use or because of the potential for spills, fire or explosions to occur.

State agencies accept delegation of federal responsibility for the administration of hazardous materials and hazardous waste management. The Porter-Cologne Water Quality Control Act allows the State Water Resources Control Board (State Water Board) and the RWQCB to accept implementation and responsibility for the Clean Water Act. The Hazardous Waste Control Act of 1977, and recent amendments to its implementing regulations, has given the Department of Health Services (DHS) the lead role in administering the Resource Conservation and Recovery Act (RCRA) program.

State and Federal Occupational Safety and Health Administration Regulations

Pursuant to the Occupational Safety and Health Act of 1970, the federal Occupational Safety and Health Administration (OSHA) has adopted numerous regulations pertaining to worker safety, contained in the Code of Federal Regulations Title 29 (29 CFR). 'Eese regulations set the standards for safe work practices and work places, including standards relating to the handling of hazardous materials.

California OSHA (Cal/OSHA) regulations are generally more stringent than federal OSHA regulations and are detailed in Title 8 of the CCR.

San Joaquin County Hazardous Materials Plan

San Joaquin County prepared a Hazardous Materials Area Plan in March 2004. This document was prepared in accordance with statutory requirements. The overall goal of the hazardous materials response system is to protect public health, prevent environmental damage, and ensure proper use and disposal of hazardous materials.

San Joaquin County Multi-Hazard Plan

The San Joaquin County Multi-Hazard Plan addresses the four phases of emergency management: mitigation, preparedness, response, and recovery. The Plan identifies those organizations, agencies, and individuals that are assigned duties and responsibilities for responding to emergencies within the unincorporated areas of the county and in support of incorporated cities. It also provides guidance on how emergencies will be managed.

Lodi General Plan

The Lodi General Plan Safety Element provides guiding and implementing policies regarding hazards and hazardous materials.

S-G2: Prevent loss of lives, injury, illness, and property damage due to flooding, hazardous materials, seismic and geological hazards.

S-P10: Require that all fuel sand chemical storage tanks are appropriately constructed; include spill containment areas to prevent seismic damage, leakage, fire and explosion; and are structurally or spatially separated from sensitive land uses, such as residential neighborhoods, schools, hospitals and places of public assembly.

Existing Conditions

The information provided in this section is based on the Neil O. Anderson and Associates, Inc. Preliminary Geotechnical Study and Phase I Environmental Site Assessment (ESA) (2008), prepared specifically for the proposed Project. Results of the Preliminary Geotechnical Study show that based on the historical agricultural use of the property, it is possible that persistent agricultural chemicals may remain in on-site soils. Stains to concrete and soil were observed near the equipment storage on the property. Although the stains observed on the subject property do not constitute recognized environmental conditions, it is possible that the surface soils have been impacted. Historic underground storage tanks (USTs) are located adjacent to the Project site and include three 10,000 gallon fuel tanks to the north and one 500 gallon fuel tank to the east. The three fuel tanks to the north are closed and no reports of leaks have been reported for the fuel tank to the east. Based on the status of the USTs, no impact to the Project site is expected from these tanks.

Standards of Significance

The following standards of significance are used to assess potential environmental impacts related to existing conditions, possible site contamination and hazardous materials of the proposed Project:

- Pose significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous material.
- Pose significant hazard to the public or the environment through reasonably foreseeable upset and accident
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school
- Conflict with within an airport land use plan
- Impair implementation of or physically interfere with an adopted emergency response plan
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires,

Impact Discussion

a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Less than significant impact. Some examples of hazardous materials handling include fueling and servicing construction equipment on-site and the transport of fuels, lubricating fluids, and solvents. These materials are generally disposed of at non-hazardous Class II and III landfills (along with traditional solid waste). Therefore, construction of the proposed Project would not require extensive or on-going use of materials that would create a significant hazard.

Operation of the laboratory associated with the proposed medical office building would use, store, or require the transportation and disposal of hazardous materials, and employees working in the laboratory would be at the greatest risk for exposure. Adverse health effects of exposure depend upon a complex interaction of factors such as the exposure pathway (the route by which a hazardous material enters the body); the amount of material to which the person is exposed; the physical form (e.g., liquid, vapor) and characteristics (e.g., toxicity) of the material; the frequency and duration of exposure; and the individual's unique biological characteristics, such as age, gender, weight, and general health. Adverse health effects from exposure to hazardous

materials may be short-term (acute) or long-term (chronic). Acute effects can include damage to organs or systems in the body and possibly death. Chronic effects, which may result from long-term exposure to a hazardous material, can also include organ or systemic damage, but chronic effects of particular concern include birth defects, genetic damage, and cancer. Off-site hazardous materials exposure would only reasonably occur through limited circumstances such as accidental spill or release during transport or use. Although implementation of the proposed Project could potentially expose people to potential hazards, safety procedures mandated by federal and state laws and regulations would ensure that the use, transport, or disposal of hazardous materials would not expose employees, visitors, or the nearby public to significant health or safety risks.

Operation of the proposed retail, restaurant and remaining office uses would not involve the transportation or disposal of hazardous materials. Small amounts of cleaning agents, pesticides, and fertilizers associated with retail, restaurant, and office uses may be used, although this would not create a significant hazard. As a result, a less-than-significant impact related to acute and chronic exposure to hazardous materials would occur.

b) *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

Less than significant impact. Historical information indicates that the Project site has been occupied primarily by agricultural uses since at least 1940. A Phase I Environmental Site Assessment (ESA) conducted for the Project site indicated that based on the historical agricultural use of the property, it is possible that persistent agricultural chemicals may remain in on-site soils. However, testing revealed residual levels of these chemicals may be acceptable for future retail, restaurant and office uses. Stains to concrete and soil were observed near the equipment storage on the property. Although the stains observed on the subject property do not constitute recognized environmental conditions, it is possible that the surface soils have been impacted. Historic underground storage tanks (USTs) are located adjacent to the Project site and include three 10,000 gallon fuel tanks to the north and one 500 gallon fuel tank to the east. The three fuel tanks to the north are closed and no reports of leaks have been reported for the fuel tank to the east. Based on the status of the USTs, no impact to the Project site is expected from these tanks. One adjacent site was listed on the Resource Conservation and Recovery Act and cleaners databases; however, the facility is now closed. This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property. Based on the results of the Phase I ESA, impacts are less than significant.

Furthermore, operation of the Project as commercial medical, and professional office as well as restaurant uses would not result in the reasonably foreseeable upset or release of any hazardous materials. Construction equipment that would be used pose potential threat to release oils, greases, solvents, and other finishing materials through accidental spills. Spill or upset of these materials would have the potential to affect surrounding land uses, but federal, state, and local controls have been enacted to reduce the effects of potential hazardous materials spills. The Lodi Fire Department enforces city, state, and federal hazardous materials regulations for Lodi. City

regulations include spill mitigation and containment and securing of hazardous materials containers to prevent spills. Compliance with these requirements is mandatory as standard permitting conditions and would minimize the potential for the accidental release or upset of hazardous materials, helping to ensure public safety. Therefore, construction and operation of the proposed Project would result in less-than-significant impacts with respect to the creation of significant hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

Less Than Significant impact. The Project site is located within one-quarter mile of Beckman Elementary School to the north. Construction of the proposed Project would involve utilization of diesel-powered trucks and equipment, which would emit toxic air contaminants in the form of diesel particulate matter. However, construction activities would be temporary and periodic. In general, health risks associated with air emissions are assessed over a period of prolonged exposure (approximately 70 years). As such, the potential periods of exposure to diesel exhaust from construction of the proposed Project are not anticipated to result in an increased health risk because the potential exposure is not chronic in nature.

Operation of the laboratory associated with the proposed medical office building would process and store hazardous materials. Safety procedures mandated by federal and state laws and regulations would ensure that emissions from the use and storage of hazardous materials would not be hazardous to employees, visitors or the nearby public. Operation emissions associated with the retail, restaurant and remaining office uses would be generated by both stationary and mobile sources. Emissions from these sources are not considered toxic air contaminants, and would not be classified as hazardous emissions. For these reasons, impacts to existing or proposed schools from acute and chronic hazardous emissions or materials would be less than significant

d) *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

Less than significant impact. A significant impact may occur if the proposed Project site contains hazardous materials that would create a significant hazard to the public or the environment. California Government Code Section 65962.5 requires state agencies to compile lists of hazardous waste disposal facilities, unauthorized releases from underground storage tanks, contaminated drinking water wells, and solid waste facilities from which there is known hazardous waste and submit such information to the Secretary for Environmental Protection on at least an annual basis.

The proposed Project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, the proposed Project would not create a significant hazard to the public or the environment. Impacts would be less than significant.

e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project area?

Less than significant impact. A significant impact may occur if the proposed Project site is located within a public airport land use plan area or within 2 miles of a public airport and would create a safety hazard. The Project site is located with the area of influence for the Lodi Airpark and Kingdon Executive Airport. The Lodi Airpark is located roughly 2 miles to the southwest of the Project site while the Kingdon Executive Airport is located approximately 4 miles southwest of the Project site. The primary function of the Lodi Airpark is as a base for a commercial aerial chemical application service for both agriculture and insect abatement purposes. The Lodi Airpark is also used for pilot training activity. The Kingdon Executive Airport presently hosts a variety of aviation activities including pilot training and aerial application of agricultural chemicals. The airport is also home to the Delta Flying Club, which owns six single-engine piston aircraft for use by its members.

The Project site is located outside of the Part 77 Horizontal Surface zone of both airports, which consists of the airport's primary, horizontal, conical, approach and transitional surfaces. Therefore, impacts related to safety hazards for people visiting or working within the Project site would be less than significant.

f) For a Project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area?

Less than significant impact. A significant impact may occur if the proposed Project is located within the vicinity of a private airstrip and creates a safety hazard for people in the Project area. The Project site is located outside of the Part 77 Horizontal Surface zone of both airports, which consists of the airport's primary, horizontal, conical, approach and transitional surfaces. Therefore, impacts related to safety hazards for people visiting or working within the Project site would be less than significant.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than significant impact. A significant impact may occur if the proposed Project were to interfere with roadway operations occurring in conjunction with an emergency response plan or emergency evacuation plan or generate enough traffic to create traffic congestion that would interfere with the execution of such a plan.

The Project would not impair implementation of or physically interfere with an adopted emergency response or evacuation plan. All construction-related activities would be contained within and immediately around the Project site. Road closures are not anticipated during construction activities; however, in the event that a closure is necessary standard contractor specifications imposed by the City include a requirement to ensure that roadways surrounding the Project site remain accessible to emergency vehicles and crews, and open for emergency evacuations, if necessary. The City has an Emergency Management Plan that addresses the campus community's planned response for various levels of emergencies, including fires, hazardous spills, earthquakes, flooding, and explosions

During construction of the proposed Project, lane closures may be necessary. However, a minimum of one lane would remain open throughout construction activities which would allow emergency access at all times. Therefore, this impact would be less than significant.

h) *Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?*

No impact. A significant impact may occur if the proposed Project is located in or adjacent to a wildland area and places persons or structures at risk in the event of a fire. The City's newly adopted General Plan (2010) identifies both urban and wildland fire hazards exist in the Lodi Planning Area, creating the potential for injury, loss of life, and property damage. Urban fires primarily involve the uncontrolled burning of residential, commercial, and/or industrial structures due to human activities. Factors that exacerbate urban structural fires include substandard building construction, highly flammable materials, delayed response times, and inadequate fire protection services.

The City of Lodi is not characterized by substantial areas of wildlands. The topography of the City is relatively homogenous and steep slopes that could contribute to wildland fires are not common. The City's General Plan indicates that less than one percent of the City and its immediate vicinity has "Moderate" fire hazard potential. In the event of a fire, the Fire Department relies on sufficient water supply and pressure. The City's design standard for water transmission facilities is to provide 4,000 gallons per minute of flow at a minimum 45 pounds per square inch of pressure in pipes 8 inches and larger. The Project area is made up of Non-Wildland/Non-Urban zones, Urban/Unzoned, and Moderate Risk zones. Therefore, the proposed Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildland fires are adjacent to urbanized areas. As such, there would be no impact.

MITIGATION MEASURES

No mitigation is required.

FINDINGS

Less-than-significant impact is anticipated.

Sources:

California Geological Survey (CGS), Probabilistic Seismic Hazards Mapping Ground Motion Page, http://redirect.conservation.ca.gov/cgs/rghm/psha/pshamap.asp, accessed August, 2010.

City of Lodi. *City of Lodi General Plan Policy Document.* Prepared by Dytte and Bhatia, Inc. April 2010.

Neil O. Anderson & Associates, Inc., *Phase I Environmental Site Assessment, Harney Lane 30-Acre Site*, August 28, 2007.

San Joaquin County, Draft Airport Land Use Compatibility Plan, 2008.

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
9. HYDROLOGY AND WATER QUALITY *Would the Project:*					
a.	Violate any water quality standards or waste discharge requirements?	☐	☐	■	☐
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	■	☐
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	■	☐
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	■	☐
e.	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	■	☐
f.	Otherwise substantially degrade water quality?	☐	☐	■	☐
g.	Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	■	☐
h.	Place within a 100-year floodplain structures which would impede or redirect flood flows?	☐	☐	■	☐
i.	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	■	☐	☐	☐
j.	Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	■

Regulatory Setting

Federal

Clean Water Act

Important applicable sections of the federal CWA (33 USC 1251-1376) include:

- Sections 303 and 304 provide water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for any federal permit that proposes an activity that may result in a discharge to waters of the United States to obtain certification from the state that the discharge will comply with other provisions of CWA. Certification is provided by the RWQCB.
- Section 402 establishes the National Pollutant Discharge Elimination System (NPDES), a permitting system for the discharge of any pollutant (except for dredged or fill material) into waters of the United States. This permit program is administered by the Central Valley RWQCB. The proposed Project would have a footprint greater than 1 acre. As a result, an NPDES General Construction Permit will need to be obtained prior to any construction activities. One requirement for an NPDES permit is the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that provides BMPs to prevent the discharge of pollutants and sediments into receiving waters.
- Section 404 establishes permit programs for the discharge of dredged or fill material into waters of the United States. This permit program is administered by the U.S. Army Corps of Engineers.

State

Porter-Cologne Water Quality Act

The State of California's Porter-Cologne Water Quality Control Act (California Water Code, Section 13000 et seq.) provides the basis for water quality regulation in California. The act requires a Report of Waste Discharge (ROWD) for any discharge of waste [liquid, solid, or otherwise) to land or surface waters that may impair a beneficial use of surface or groundwater of the state. Based on the report, the RWQCBs issue waste discharge requirements to minimize the effect of the discharge.

Report of Waste Discharge

The ROWD is pursuant to California Water Code Section 13260. Section 13260 states that persons discharging or proposing to discharge waste that could affect the quality of the waters of the state, other than into a community sewer system, must file an ROWD containing information that may be required by the appropriate RWQCB.

Local

Lodi General Plan

Environmental Checklist

The Safety Element of the Lodi General Plan addresses flooding and water quality issues.

GM-G2: Provide infrastructure-including water, sewer, stormwater, and solid waste/recycling systems-that is designed and timed to be consistent with Projected capacity requirements and development phasing.

GM-P8: Ensure that public facilities and infrastructure—including water supply, sewer, and stormwater facilities—are designed to meet Projected capacity requirements

to avoid the need for future replacement and upsizing, pursuant to the General Plan and relevant master planning.

S-G2: Prevent loss of lives, injury, illness, and property damage due to flooding, hazardous materials, seismic and geologic hazards and fire.

S-PI: Continue to participate in the National Flood Insurance Program and ensure that local regulations are in full compliance with standards adopted by FEMA.

Existing Conditions

Surface Water

The Project area is located in the San Joaquin River basin, one of three major watersheds in California. It covers 15,880 square miles. The principal streams are the San Joaquin River and its large tributaries: the Cosumnes, Mokelumne, Calaveras, Stanislaus, Tuolumne, Merced, Chowchilla, and Fresno Rivers.

The major surface water feature in the Project vicinity is the Mokelumne River, which borders the city of Lodi to the north. Impoundment of the Mokelumne River at Woodbridge forms Lodi Lake, which serves as a diversion for the Woodbridge Irrigation District South Main Canal. This canal provides irrigation water to agricultural land west and south of Lodi.

Groundwater

The Project overlies the Eastern San Joaquin groundwater basin, which is an integral, interconnected part of the Central Valley groundwater basin. The groundwater in the basin is contained in the Mehrten formation and overlying younger aquifer units below the city. The aquifer underlying this is largely unconfined. Groundwater is encountered nearest to the surface in the northwestern portion of Lodi near Woodbridge at approximately 20 feet below ground surface but is approximately 60 feet below ground surface at the Project site. Primary sources of recharge to the aquifer underlying Lodi are seepage from the Mokelumne River, deep percolation of rainfall, regional sources including the Delta and along the Sierra mountain-front, and percolation of irrigation water, particularly in the areas that use surface water from the Woodbridge Irrigation District.

Flooding

The Federal Emergency Management Agency (FEMA) delineates 100-year floodplains and publishes the information on Flood Insurance Rate Maps (FIRMS). According to the FIRM, the proposed Project area would be protected from a 100-year flood; however, a 500-year flood would inundate the area (FIRM map 06033).

Climate.

The climate in Lodi is characterized by long, dry hot summers and mild winters. The mean annual rainfall in the vicinity of the Project site, for the period between 1948 and 2005, is approximately 17.6 inches, with the vast majority of rainfall between November and March. Analysis of long-term precipitation records indicates that wetter and drier cycles lasting several years are common in the region.

Runoff and Drainage.

Drainage and flood control facilities in the Project area are maintained by the City of Lodi. The City of Lodi municipal storm drainage system consists of an integrated system of trunk lines, detention basins, and pump stations. Surface infrastructure such as gutters,

alley, and storm ditches provide for collection of stormwater into the system. The City's stormwater drainage system includes 16 storm outlets to the Mokelumne River, Lodi Lake, or the WID Canal. Since most of the drainage area slopes away from the Mokelumne River toward the southwest, the majority of the city's drainage would eventually discharge into the WID Canal. The City of Lodi maintains 110 miles of stormwater collection and conveyance piping. The WID Canal receives water for a significant portion of the City's stormwater. The Storm Drainage Discharge Agreement between the City and WID serves as the governing document between the two entities and allows the City to discharge stormwater into WID Canals for 40 years. The City is limited to discharging 160 cubic feet per second (cfs), as a maximum winter discharge rate. The maximum winter rate per discharge site is 60 cfs. During the summer, WID uses the canal for irrigation purposes. Therefore, the City's discharge rate is reduced to a maximum of 40 cfs total, not to exceed 20 cfs per discharge site. Giving WID notice 12 hours prior to discharge can increase this. Several stormwater detention basins are operated by the City to control runoff for events up to a 100-year storm. These detention basins also function as sports facilities (baseball fields, soccer fields, etc.), but their primary purpose is flood control. Forty-five (45) storm pumps, operating at 14 pumping stations, service Lodi's stormwater system. The City also maintains a portable generator for emergency use. Drainage facilities proposed within the City of Lodi are required to be designed and constructed to the City of Lodi standards.

The City has two existing discharge stations to WID canal and is allowed three stations. Most major storms occur off-season and the systems generally provide for 100-year storage, these limitations are unlikely to be a constraint. Even in the event that storms occur during the irrigation season, the ability to retain flow will provide the flexibility needed to operate the system.

Water Resources.
The City of Lodi draws fresh water from both surface and ground sources. Surface water is provided from the Mokelumne River and WID Canal. Surface water is not currently used for human consumption in Lodi, but the City recently secured a long-term contract (40 years) for approximately 6,000 acre-feet of water per year from the Mokelumne for municipal use. The City's water supply primarily comes from groundwater via 267 municipal wells. Information related to municipal water use and the Water Supply Assessment is located in Section 17, Utilities.

Standards of significance.
The following standards of significance are used to assess potential environmental impacts related to drainage and water quality issues of a proposed Project:

- Exposure of people and structures to new or increased flooding hazards;
- Loss of flood carrying capacities within downstream storm drain facilities and receiving waters;
- Decline in local surface or groundwater quality as a result of Project development, including impacts from future occupants of the Project as well as construction-related impacts;
- Decline in the quantity of available groundwater.

Impact Discussion:

a) Violate any water quality standards or waste discharge requirements?

Less than Significant. The proposed annexation and future construction within the area following annexation could result in soil erosion into adjacent bodies of water. Development of the Project site would substantially alter the on-site drainage pattern and require installation of on-site storm water conveyance features and modification or installation of off-site drainage facilities due to the increased amount of storm water runoff from impervious surfaces. However, future developments within the Project area would be required to conform to surface water quality standards adopted by the Regional Water Quality Control Board and enforced by the City of Lodi. These standards mandate installation of either biological or mechanical methods of treating and cleansing stormwater runoff prior to entering the City and regional drainage system, or equivalent water quality features. With adherence to these requirements, this impact would be less-than-significant.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less than Significant. The proposed annexation and future construction within the area following annexation could the amount of impermeable surfaces onsite and, as a result, reduce the site's groundwater recharge potential. In addition, the proposed Project would increase the use of groundwater as a water source and contribute to the existing overdraft of the groundwater basin.

The proposed Project would lead to the conversion of approximately 30 acres of largely permeable agricultural and open land to largely impermeable developed land. While not all 30-acres of developable land will become impermeable, the proposed Project would increase the amount of impermeable surface onsite and, in turn, decrease the percolation potential of the Project site.

The City currently has no detention basins near the Project site. As part of annexation to the City, the Project would be required to provide a retention basin without outflow either onsite or on adjacent properties to collect the site's stormwater run-off and allow such stormwater to partially percolate into the groundwater table. The said retention basin would partially offset the impact of the increased impermeable surfaces within the Project area.

MITIGATION MEASURE HWQ:

1. Prior to issuance of a grading or development permits, to the satisfaction of the City of Lodi Public Works Department, the Project proponent shall provide a private retention basin either onsite on adjacent properties to serve the proposed annexation Project. The said retention basin shall be designed with the following criteria:
   i. A 48-hour, 100-year storm, total rainfall of 4.3 inches capacity shall be provided;
   ii. Fencing shall be provided around the basin greater than 3 feet in depth;
   iii. Adequate all weather access shall be provided;

iv. Any additional requirements placed as a condition of approval shall be incorporated into the design.

2. To the satisfaction of the City of Lodi Public Works Department, as part of the design process, a detailed drainage master plan shall be developed to identify collection and storage facilities, phasing and other appurtenances needed to insure that the system meets the requirements of the City drainage system.

3. To the satisfaction of the City of Lodi Public Works Department, the proposed retention basin shall include no outflow facility to help manage nuisance flows. Other water quality control features shall be incorporated into the Project design to improve water quality to the satisfaction of the City of Lodi Public Works Department.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Less than Significant. The proposed Project would not result in substantial erosion or siltation on- or off-site, and the Project would have no related significant impacts. The Project site does not contain any discernable watercourses, topographical depressions, or bodies of standing water. Thus, the Project would not alter the course of a river or stream. However, the proposed Project would develop commercial uses with associated roadways and infrastructure on a currently undeveloped, approximately 30-acre site. The installation of impermeable surfaces including roadways, driveways, parking lots, and structures will increase the volume and velocity of stormwater runoff from the site, which can increase erosion and siltation.

As discussed, the proposed Project includes an engineered drainage system to manage stormwater flows on the Project site. The proposed drainage system is designed to collect the site's stormwater in a retention basin. The proposed controlled drainage system and detention basin largely eliminates the erosion and siltation potential of the site's stormwater. Therefore, although the proposed Project would alter the site's drainage pattern, the Project would not result in significant erosion or siltation impacts.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?

Less than Significant. The Project site does not contain any discernable watercourses, topographical depressions, or bodies of standing water. Thus, the Project would not alter the course of a river or stream. However, the proposed Project would develop commercial uses with associated roadways and infrastructure on a currently undeveloped, approximately 30-acre site.

The installation of impermeable surfaces including roadways, driveways, parking lots, and structures would increase the volume and velocity of stormwater runoff from the site. However, as discussed, the proposed Project would be required to provide a private retention basin and an engineered drainage system to manage stormwater flows. The applicant has proposed a drainage system is designed to collect the site's stormwater through a series of surface flows, catch basins, and

storm drains. It would divert surface flows to the Project's streets and parking lots, where it would then flow into storm drains. The proposed storm drains would convey the site's stormwater to a private off-site retention basin southwest of the site. Since the proposed drainage system has not yet been designed to a construction level drawing detail, adherence to mitigation measures listed above would reduce impacts to less than significant

e) *Create or contribute runoff water, which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?*

Less than Significant. The Project site currently does not have a drainage system to control runoff derived from impervious surfaces. The amount of stormwater pollution generated from the Project area following annexation could increase due to an increase in impervious surfaces for new development. Stormwater pollution could also increase due to construction activities conducted on the site. Construction and grading within the Project site would require temporary disturbance of surface soils.

As a part of the compliance with NPDES requirements, a Notice of Intent (NOI) would need to be prepared and submitted to the CVRWQB providing notification and intent to comply with the General Permit to Discharge Storm Water Associated with Construction Activity for each individual Project. Prior to construction and site grading, a Storm Water Pollution Prevention Plan (SWPPP) is required for construction activities and remediation on-site. The SWPPP outlines the source control and /or treatment control Best Management Practices (BMPs) that would avoid or mitigate runoff pollutants at the construction site to the "maximum extent practicable." Implementation of the following mitigation measure would reduce potential impacts to less-than-significant levels.

The proposed Project would alter the site's drainage pattern and install an engineered drainage system to manage onsite stormwater flows. The proposed Project includes an engineered drainage system to manage stormwater flows on the Project site and construction of onsite retention basin, which is designed to collect the site's stormwater in a detention basin prior to piping the stormwater to the WID canal. The proposed storm drains would convey the site's stormwater to the southwest corner of the site where it would be discharged into the proposed retention basin. The proposed drainage system and retention basin allow the quantity and quality of stormwater to be managed prior to its discharge to WID.

MITIGATION MEASURE HWQ:

4. The Project proponent shall prepare a Storm Water Pollution Prevention Plan (SWPPP) designed to reduce potential impacts to surface water quality through the construction period of the Project. The SWPPP must be maintained on-site and made available to City inspectors and/or RWQCB staff upon request. The SWPPP shall include specific and detailed BMPs designed to mitigate construction-related pollutants. At minimum, BMPs shall include practices to minimize the contact of construction materials, equipment, and maintenance supplies (e.g., fuels, lubricants, paints, solvents, adhesives) with storm water. The SWPPP shall specify properly designed centralized storage areas that keep these materials out of the rain.

Please see *Section 17 Utilities* for more discussion related to the proposed onsite retention basin and mitigation measures related to the proposed retention basin.

f) Otherwise substantially degrade water quality?

Less than Significant. Although there is a potential for surface water pollution from construction of new development in the Project area, such water quality impacts would be reduced to a less-than- significant level by adherence to City of Lodi and Regional Water Quality Control Board surface water quality standards, including applicable NPDES requirements. Water quality features will be required by the City as part of the normal development review process to reduce the potential for water pollution to a less-than-significant level.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. The proposed Project would not place housing within a 100-year flood hazard area identified on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map because the Project does not include a residential component that would be affected by flooding potential, so no impact would occur.

h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?

No Impact. According to the Federal Emergency Management Agency, a majority of the Project site is located within Flood Zone B, which is designated as those areas located outside of the 100-year floodplain and potentially protected by levees from the base flood, while the eastern portion of the Project site is located in Flood Zone C, which is designated as an area of minimal flooding that is located outside the of 100- and 500-year floodplains. Therefore, no placement of structures in a flood hazard zone would occur under the proposed Project.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less Than Significant: The Project sites, as well as the entire City of Lodi, are located in a dam inundation area for the Pardee and Camanche Dam and dike system. Flood water from the Pardee dam would take 4 hours and 20 minutes to reach west Lodi, and flood water from the Camanche Dam and dike system would take 4 to 6 hours to reach Lodi. Due to the location of the proposed Project, the impacts associated with seiches, tsunami, and extreme high tides or sea level change would be considered low.

j) Inundation by seiche, tsunami, or mudflow?

Less than Significant. A seiche is the tide-like rise and drop of water in a closed body of water caused by earthquake-induced seismic shaking or strong winds. A tsunami is a series of large waves generated by a strong offshore earthquake or volcanic eruption. Given the substantial distance of the Project site from San Francisco Bay or the Pacific Ocean, tsunami waves would not be a threat to the

site. There is no large body of water on or within the vicinity of the Project site. The subject area is flat and does not have any steep slopes or hillsides that would be susceptible to mudflows or landslides. Therefore, no impact would occur.

FINDINGS

Less-than-significant impact is anticipated.

Sources

City of Lodi. *City of Lodi General Plan Policy Document.* Prepared by Dytte and Bhatia, Inc. April 2010.

Federal Emergency Management Agency, Flood Insurance Rate Map, Map No. 06077C0306F, October 19, 2009.

Western Regional Climate Center, 2005. Website: http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?calodi+nca

Blank Page

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
10.	**LAND USE AND PLANNING.** *Would the Project:*				
a.	Physically divide an established community?	☐	☐	☐	■
b.	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating on environmental effect?	☐	■	☐	☐
c.	Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	■	☐	☐

Regulatory Setting

There are several regulatory documents that serve as a guide for land use and development on the Project site. The following review of these documents is categorized based on the four jurisdictions that oversee the regulation of the Project site: the City of Lodi; the County of San Joaquin; the San Joaquin County Local Agency Formation Commission (LAFCO), and the San Joaquin Council of Governments (SJCOG). Regulations that specifically relate to agricultural use are discussed separately.

City of Lodi. The Project site is located in San Joaquin County but is within the City of Lodi's Sphere of Influence. As part of the development process, the City would annex this area. The following City of Lodi documents are discussed: City of Lodi General Plan; City of Lodi Zoning Ordinance; and City of Lodi Bicycle Transportation Master Plan.

City of Lodi General Plan. The Lodi General Plan was adopted in April 2010, and represents the official policy regarding the future character and quality of development within the City of Lodi. The General Plan designates the general distribution of different types of land uses within the City, and the document serves as a point of reference for public officials when making land use and planning decisions.

The General Plan includes the following elements: Land Use, Circulation, Open Space, Conservation, Safety, Noise, Housing and two optional elements: Community Design and Livability and Growth Management and Infrastructure. For each of these elements, the General Plan outlines goals, policies, standards, and implementation programs. A goal is considered a direction-setter, an ideal future end, condition, or state. A policy is a specific statement that guides decision- making. A standard is a specific, quantified guideline that is incorporated into a policy or implementation program. An implementation program is an action, procedure, program or technique that carries out general plan policy.

While the Project site is located outside the City of Lodi's jurisdictional boundary, it is within the City's Sphere of Influence. The Project site has been given a land use designation

in the City's General Plan, and the goals and policies of the General Plan are applicable. The current General Plan designation for the Project site is Commercial.

This designation provides for neighborhood and locally oriented retail and service uses, multifamily residential units, public and quasi-public uses, professional and administrative offices, medical and dental clinics, laboratories, financial institutions, and similar and compatible uses. Annexation of the Project would not necessitate General Plan amendment.

The City's Growth Management and Infrastructure Element includes the following policy man dates:

GM-P2 Target new growth into identified areas, extending south, west, and southeast. Ensure contiguous development by requiring development to conform to phasing described in Development Phasing map below. Enforce phasing through permitting and infrastructure provision. Development may not extend to Phase 2 until Phase 1 has reached 75% of development potential (measured in acres) and development may not extend to Phase 3 until Phase 2 has reached 75% of development potential. In order to respond to market changes in the demand for various land use types, exemptions may be made to allow for development in future phases before these thresholds in the previous phase have been reached.

GM-P6 Annex areas outside the existing sphere of influence to conform with development needs for Phase 1, Phase 2, and Phase 3. Subsequent phases shall be annexed as current phases reach development thresholds.

The Lodi General Plan Land Use Element lists the following applicable guidelines policy:

GM-P2 Create a balanced and sustainable land use pattern that provides for a diversity of uses and satisfies existing and future needs.

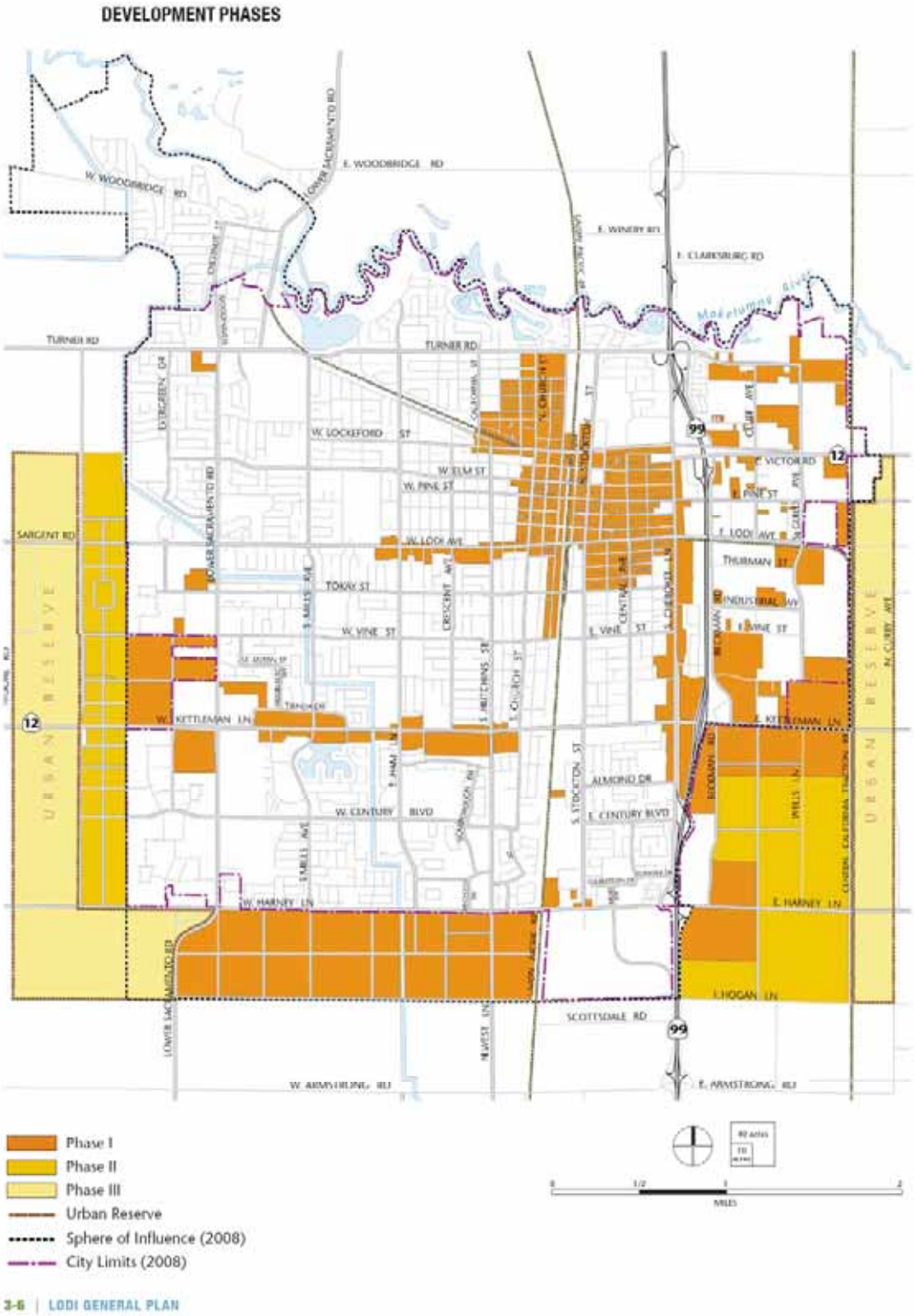


Exhibit 10.1 – Development Phases

City of Lodi Zoning Ordinance. The City of Lodi Zoning Ordinance is intended to provide a guide for the physical development of Lodi and to encourage the appropriate use of land, and the Zoning Map identifies different zoning districts. As the Project site is not within the City of Lodi jurisdictional boundary, it doesn't have zoning designations. However, the Project site would be pre-zoned upon annexation. The Project site would be pre-zoned Planned Development, which is designed to accommodate various types of development such as neighborhood and community shopping centers, grouped professional and administrative office areas, senior citizens' centers, multiple housing developments, commercial service centers, industrial parks or any other use or combination of uses which can be made appropriately a part of a planned development. In a P-D zone, any and all uses are permitted; provided, that such use or uses are shown on the development plan for the particular P-D zone as approved by the City Council. Maximum height and bulk, and minimum setback, yard and parking and loading requirements shall be established for each P-D zone by the development plan as approved by the City Council. These development parameters would be consistent with the General Plan designation for the sites.

City of Lodi Right-to-Farm Ordinance**.** Chapter 8.18 of the Lodi Municipal Code provides notice of agricultural operations affecting other properties. It is the policy of the city to protect, preserve and encourage the use of viable agricultural land for the production of food and other agricultural products. The seller of any real property is required to provide a disclosure statement which states that the City of Lodi permits operation of agricultural operations within city limits, including those using chemical fertilizers and pesticides. The statement further states that the property may be close to agricultural lands, and that the residents may be subject to inconvenience or discomfort arising from agricultural uses or the use of chemicals and pesticides.

Lodi Bicycle Transportation Master Plan. The Bicycle Transportation Plan outlines goals for bicycling in Lodi, a proposed network of bikeways within the city, and a set of programs and policies to support bicycling. This Plan seeks to achieve the following goals:

- Provide bicycle facilities to serve the needs of all types of cyclists in Lodi.
- Coordinate the bicycle facilities that exist and are to be constructed in unincorporated San Joaquin County.
- Allow for priority use by cyclists on some trails and streets, just as priority use by motor vehicles is allowed on arterial streets.
- Provide a continuous network of bike lanes on the City's arterial streets, to allow for the safest and most efficient bicycle commuting possible to major destinations. Bike lanes will serve experienced commuting cyclists.
- Provide a second continuous network of dedicated bike paths and designated bikeways on streets with low traffic volumes, to allow for unimpeded flow of bicycles in areas where there are not significant conflicts with vehicular traffic. These bikeways will serve cyclists who prefer quiet, separated bikeways.

County of San Joaquin. The San Joaquin Local Agency Formation Commission (LAFCO) is a countywide regulatory agency that coordinates changes in local government boundaries. LAFCO approves jurisdictional boundary changes, including annexation of land into a city. The Project site would fall under the purview of LAFCO for review of the annexation.

LAFCO has established factors that are considered in the review of proposals. Some of these factors include: population and population density; the need for organized community

services; the effect of the proposed action and of alternative actions, on adjacent areas, on mutual social and economic interests, and on the local governmental structures of the county; and the extent to which a proposal will affect a city or cities and the county in achieving their respective fair share of the regional housing needs as determined by the council of governments. The San Joaquin LAFCO makes the final determination as to whether the Project sites could be annexed by the City of Lodi.

The Project site lies within unincorporated San Joaquin County. An approval by the San Joaquin County Local Agency Formation Commission (LAFCO) of annexation to the City of Lodi is requested as part of the Project.

San Joaquin County General Plan. The San Joaquin County General Plan 2010 was adopted by the Board of Supervisors in 1992. The General Plan expresses long-rang public policy to guide the use of private and public lands within a community's boundaries. The San Joaquin County General Plan is the County's official position on development and resource management. The San Joaquin County General Plan designation for Project site is Agriculture. The County is in the process of updating its General Plan and anticipates to complete next year.

San Joaquin Council of Governments. The San Joaquin Council of Governments (SJCOG) has developed a San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (Plan). The key purpose of the Plan is to provide a strategy for balancing the need to conserve open space and the need to convert open space to non-open space uses while protecting the region's agricultural economy. The plan is intended to mitigate impacts to plant, fish and wildlife and to compensate for impacts to recreation, agriculture, and open space. Under this Plan, new development within the Plan area must pay compensation for the loss of undeveloped land. The Project site falls within the Plan area.

Annexation. San Joaquin County's Local Agency Formation Commission (LAFCO) is responsible for reviewing and acting upon requests for annexation to, or detachment from, cities or districts, such as the Project request for annexation to the City of Lodi. LAFCO powers were authorized in the Cortese-Knox Act of 1985, which was comprehensively revised in the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 ("Act"). The purpose of the Act is to encourage planned, efficient urban development patterns with appropriate consideration to preserving open space and prime agricultural lands, to discourage urban sprawl,and to encourage efficient extension of governmental services based upon local conditions and circumstances. (Government Code Sections 56001 and 56301). LAFCOs have the specific authority to review, among other things, annexations to or detachment from cities or districts. The Act requires that annexation areas be prezoned and provides for annexation approvals consistent with the planned and probable use of the property based on the general plan and prezoning designations. (Government Code Sections 56375(a), (e).) Annexation requests are reviewed for consistency with adopted spheres of influence (Sections 56375.5,56668), and for guiding development toward non-prime agricultural lands unless such development would not be orderly or efficient (Government Code Section 56377.) Additionally, the Act sets forth a lengthy list of factors to be considered by LAFCO.

Standards of significance.

Implementation of the proposed Project would have a significant effect on land use and agriculture if it would:

- If the proposed Project is incompatible with on-site and/or adjacent land uses, causing the potential for a substantial adverse change in the types or intensity of existing land use patterns;
- If a proposed Project is not consistent with adopted land use policies, or would require a change in such policies in order to achieve consistency;
- If a proposed Project disrupts or divides the physical arrangement of an established community;
- If a proposed Project conflicts with the provisions of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.

Impact Discussion

a) Physically divide an established community?

Less than Significant Impact. The physical division of an established community typically refers to the construction of a physical feature (such as an interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community, or between a community and outlying area. The approximately 30-acre site consists of an abandoned golf driving range and agricultural land and does not support a residential community. Residential and commercial uses are located to the north while agricultural uses are located to the east, south and west. The Project would include internal roadways, sidewalks, and paths of travel, which would allow for circulation within the Project sites. Several of the roads will be stubbed out on the southern and western boundary. This was done so as not to preclude opportunities for circulation connections to the south and west if development should occur. The proposed Project would not include any features that would prevent or restrict access to or through the Project site. As such, the proposed Project would not divide an established community, and less than significant impact would occur.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less than Significant Impact with mitigation measure incorporated. The Project site is presently designated by the City of Lodi 2010 General Plan as Commercial., which permit such uses as neighborhood and locally oriented retail and service uses, multifamily residential units, public and quasi-public uses, professional and administrative offices, medical and dental clinics, laboratories, financial institutions, and similar and compatible uses. The approximately 30-acre site consists of an abandoned golf driving range and agricultural land and is located adjacent to the land that is currently in active agricultural production, which could expose future tenants and users to night agricultural operations, nuisance odors, dust and wind erosion, and related. The proposed Project would require annexation into the City of Lodi and prezoning. However, it t would not require a General Plan Amendment. The applicant has applied for a Planned Development (PD) zoning designation for the Project site.

This designation allows more flexibility with the development standards in the Zoning Ordinance. The parameters of the proposed PD designation would be approved by the Planning Commission. This potential land use incompatibility is considered less than significant with implementation of the following mitigation measurers.

Convert Prime Farmland. The Project parcel and parcels located within the Project site are primarily used in agricultural production. The Project site and adjacent parcels are designated as Prime Farmland by Farmland Mapping and Monitoring Program. Annexation and development of the proposed Project would result in the conversion of this Prime Farmland to nonagricultural uses. There are no feasible mitigation measures that would reduce this impact to a less-than-significant level. This impact would be considered significant and unavoidable even with implementation of the mitigation measures listed in AGRICULTURAL RESOURCES section. Implementation of the Mitigation Measures listed in the Agricultural Resources section would minimize the impact but not to a less-than-significant level:

MITIGATION MEASURE LU:

1. The applicant shall inform and notify prospective buyers in writing, prior to purchase, about existing and on-going agricultural activities in the immediate area in the form of a disclosure statement. The notifications shall disclose that the Project site is located in an agricultural area subject to ground and aerial applications of chemical and early morning or nighttime farm operations which may create noise, dust, etcetera. The language and format of such notification shall be reviewed and approved by the City Community Development Department prior to recordation of final map(s). Each disclosure statement shall be acknowledged with the signature of each prospective owner. Additionally, each prospective owner shall also be notified of the City of Lodi and the County of San Joaquin Right-to- Farm Ordinance.

Mitigation Measures listed in the Agricultural Resources section have been reproduced below for the befit of the reader.

Mitigation Measures AG:

1. Prior to issuance of a grading permit for any area of the Project site that includes prime agricultural soils, the affected landowner(s) shall secure agricultural conservation easement in perpetuity at rate of one 1:1 (acreage converted/easement secured) in the northern San Joaquin County area, excluding areas designated as nature. The said easement shall be designated by the State as Prime Farmland. In addition, the location, size and terms of the easement shall be approved by the City of Lodi City Manager or designee.
2. The applicant shall inform and notify prospective buyers in writing, prior to purchase, about existing and on-going agricultural activities in the immediate area in the form of a disclosure statement. The notifications shall disclose that the Project is located in an agricultural area subject to ground and aerial applications of chemical and early morning or nighttime farm operations which may create noise, dust, etcetera. The language and format of such notification shall be reviewed and approved by the City Community Development Department prior to recordation of final map(s). Each disclosure statement shall be acknowledged with the signature of each prospective owner. Additionally, each prospective owner shall also be notified of the City of Lodi and the County of San Joaquin Right-to-Farm Ordinance.

Even with implementation of the above mitigation measure, this impact would still be considered significant and unavoidable.

Williamson Act Contract. The Project parcel is not under Williamson Act and, therefore, there will no conflict thereof.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

Less than Significant Impact with mitigation measure incorporated. The Project site consists of an abandoned golf driving range and agricultural land. As mentioned previously in BIOLOGICAL RESOURCES section the Project site is located within the boundaries of the SJMSCP. The SJMSCP classifies the eastern half of the Project site as Category C Agricultural Habitat Open Spaces Pay Zone B (Agricultural) and the western half of the Project site as Category A Exempt No Pay Zone. Further, previous EIRs for the Project vicinity established no habitat or sensitive natural communities exist within the Project area. Moreover, the proposed Project is consistent with the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), as amended, as reflected in the conditions of Project approval for this proposal. Pursuant to the Final EIR/EIS for the San Joaquin county Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), dated November 15, 2000, and certified by the San Joaquin Council of Governments on December 7, 2000, implementation of the SJMSCP is expected to reduce impacts to biological resources resulting from the proposed Project to a level of less-than–significant. That document is hereby incorporated by reference and is available for review during regular business hours at the San Joaquin Council of Governments (555 East Webber Avenue/Stockton, CA 95202) or online at: www.sjcog.org. According to the SJCOG HCP, the Project area is classified as Category A, which is disturbed urban land that has no wetlands, biological resources. Therefore, less than significant impact is anticipated.

MITIGATION MEASURE LU:

2. The City shall not issue a building permit, including site grading, clearing and construction, until preconstruction site survey occurs and the Project proponent(s) signs Incidental Take Minimization Measures (ITMM) has been approved by the San Joaquin County Council of Governments (SJCOG, Inc) in accordance with rules and regulations of the San Joaquin county Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). The said preconstruction survey shall occur no greater than 30 days prior to or at the time of issuance of Building Permit. It shall be the responsibility of the Project proponent(s) to coordinate the said preconstruction site survey.

FINDINGS

Less-than-significant impact is anticipated.

Sources

City of Lodi. City of Lodi General Plan Policy Document. Prepared by Dytte & Bhatia, Inc., April 2010.

Blank page

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
11. MINERAL RESOURCES *Would the Project:*				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	☐	☐	☐	■
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	■

Regulatory Setting

Existing Conditions

Mineral resources in San Joaquin County consist mainly of sand and ravel. The Project area is not near the principal areas of mining activity, which are located in the southwestern portion of San Joaquin County. The closest significant aggregate resources is approximately 12 miles east of the Project area.

Standards of Significance

A Project would be significant if it would result in the loss of known mineral resources as identified on a general plan, specific plan or other land use plan.

Impact Discussions

Would the Project:

a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

No Impact. According to the Division of Mines and Geology 2006 Mineral Land Classification Map, the Project site and surrounding areas are located within a mineral resource zone classified as MRZ-3. The MRZ-3 zone is defined as "areas containing mineral deposits, the significance of which cannot be evaluated from available data." There are no known mineral resources in the vicinity of the proposed Project area. Further, the Project site is surrounded by land uses that are not compatible with pit mining (commercial, residential, and roads) all of which would preclude it from being developed as a mine, even if there is indeed an extractable mineral resource present. Therefore, no impacts associated with the loss of a mineral resource would occur.

b) *Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

No Impact. The site is not delineated in the City of Lodi General Plan as containing a locally important mineral resource. There are no significant known deposits of minerals on the site. No mining operations are located within the vicinity of the site. As discussed above in item GEOLOGY AND SOIL RESOURCES section, soils on the Project site consist of Tokay fine sandy loam and Tokay-Urban land complex

soils. The Project site is not known to contain any mineral resources. As a result, no impact to mineral resources would result.

MITIGATION MEASURES
No mitigation is required.

FINDINGS
Less-than-significant impact is anticipated.

Sources
California Department of Conservation (CDC), Division of Mines, *California Geological Survey - SMARA Mineral Land Classification Map 2006*.

City of Lodi. *City of Lodi General Plan Policy Document.* Prepared by Dytte & Bhatia, Inc., April 2010.

San Joaquin County. San Joaquin County General Plan 2010. 1992.

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
12.	**NOISE** *Would the Project result in:*				
a.	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	■	☐	☐
b.	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	■	☐
c.	A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?	☐	■	☐	☐
d.	A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?	☐	■	☐	☐
e.	For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?	☐	☐	☐	■
f.	For a Project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise levels?	☐	☐	☐	■

Noise

Terminology

Noise is commonly defined as unwanted sound that annoys or disturbs people and potentially causes an adverse psychological or physiological effect on human health. Because noise is an environmental pollutant that can interfere with human activities, evaluation of noise is necessary when considering the environmental impacts of a proposed Project.

Sound is mechanical energy (vibration) transmitted by pressure waves over a medium such as air or water. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level is the most common descriptor used to characterize the loudness of an ambient (existing) sound level. Several noise measurement scales exist which are used to describe noise in a particular location. A *decibel* (dB) is a unit of measurement which indicates the relative intensity of a sound. The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3.0 dB or less are only perceptible in laboratory environments. Audible increases in noise levels generally refer to a change of 3.0 dB or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense,

30 dB is 1,000 times more intense. Each 10-dB increase in sound level is perceived as approximately a doubling of loudness. Sound intensity is normally measured through the *A-weighted sound level* (dBA). This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Table below provides definitions of sound measurements and other terminology used in this chapter.

Table 12-1: Sound Definition and Terminology

Sound Measurements	Definition
Decibel (dB)	A unitless measure of sound on a logarithmic scale, which indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micro-pascals.
A-Weighted Decibel (dBA)	An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
Maximum Sound Level (L_{max})	The maximum sound level measured during the measurement period.
Minimum Sound Level (L_{min})	The minimum sound level measured during the measurement period.
Equivalent Sound Level (L_{eq})	The equivalent steady state sound level that in a stated period of time would contain the same acoustical energy.
Percentile-Exceeded Sound Level (L_{xx})	The sound level exceeded "x" % of a specific time period. Llois the sound level exceeded 10% of the time.
Day-Night Level (L_{dn})	The energy average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels occurring during the period from 10:OO p.m. to 7:00 a.m.
Community Noise Equivalent Level (CNEL)	The energy average of the A-weighted sound levels occurring during a 24-hour period with 5 dB added to the A-weighted sound levels occurring during the period from 7:00 p.m. to 10:OO p.m. and 10 dB added to the A-weighted sound levels occurring during the period from 10:OO p.m. to 7:00 a.m.
Peak Particle Velocity (Peak Velocity or PPV)	A measurement of ground vibration defined as the maximum speed (measured in inches per second) at which a particle in the ground is moving relative to its inactive state. PPV is usually expressed in inches/sec.
Frequency: Hertz (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure.

As noise spreads from a source, it loses energy so that the farther away the noise receiver is from the noise source, the lower the perceived noise level would be. Geometric spreading causes the sound level to attenuate or be reduced, resulting in a 6-dB reduction in the noise level for each doubling of distance from a single point source of noise to the noise sensitive receptor of concern. There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. Equivalent continuous sound level (Leq) is the total sound energy of time-varying noise over a sample period. However, the predominant rating scales for human communities in the State of California are the Leq and community noise equivalent level (CNEL) or the day-night average level (Ldn) based on A-weighted decibels (dBA). CNEL is the time-varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly Leq for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and a 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). Ldn is similar to the CNEL scale but without the adjustment for events occurring during the evening hours. CNEL and Ldn are within one dBA of each other and are normally exchangeable. The noise adjustments are added to the noise events occurring during the more sensitive hours. The City of Lodi uses the CNEL noise scale for long-term noise impact assessments. Table below demonstrates typical a-weighted sound levels for indoor and outdoor activities.

12-2: Typical A-Weighted Sound Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock band
Jet flyover at 1,000 feet		
	100	
Gas lawnmower at 3 feet		
	9 0	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	8 0	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower, 100 feet	70	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60	
		Large business office
Quiet urban daytime	50	Dishwasher in next room

Regulatory Setting

Noise Control Act (1972)

In 1972 Congress enacted the Noise Control Act. This act authorized the EPA to publish descriptive data on the effects of noise and establish levels of sound "requisite to protect the public welfare with an adequate margin of safety." These levels are separated into health (hearing loss levels) and welfare (annoyance levels) as shown in Table IV.D-2. The EPA cautions that these identified levels are not standards because they do not take into account the cost or feasibility of the levels. For protection against hearing loss, 96 percent of the population would be protected if sound levels are less than or equal to an Leq(24) of 70 dB. The "(24)" signifies an Leq duration of 24 hours. The EPA activity and interference guidelines are designed to ensure reliable speech communication at about 5 feet in the outdoor environment. For outdoor and indoor environments, interference with activity and annoyance should not occur if levels are below 55 dBA and 45 dBA, respectively.

State of California.

The State of California has established regulations that help prevent adverse impacts to occupants of buildings located near noise sources. Referred to as the "State Noise Insulation Standard," it requires buildings to meet performance standards through design and/or building materials that would offset any noise source in the vicinity of the receptor. State regulations include requirements for the construction of new hotels, motels, apartment houses, and dwellings other than detached single-family dwellings that are intended to limit the extent of noise transmitted into habitable spaces. These requirements are found in the California Code of Regulations, Title 24 (known as the Building Standards Administrative Code), Part 2 (known as the California Building Code), Appendix Chapters 12 and 12A. For limiting noise transmitted between adjacent dwelling units, the noise insulation standards specify the extent to which walls, doors, and floor ceiling assemblies must block or absorb sound. For limiting noise from exterior noise sources, the noise insulation standards set an interior standard of 45 dBA CNEL in any habitable room with all doors and windows closed. In addition, the standards require preparation of an acoustical analysis demonstrating the manner in which dwelling units have been designed to meet this interior standard, where such units are proposed in an area with exterior noise levels greater than 60 dBA CNEL.

City of Lodi.

The City of Lodi addresses noise in the Noise Element of the General Plan and in the Noise Ordinance. The Noise Element of the General Plan adopts the Land Use Compatibility Chart which is shown in below. The Noise Element also lists goals and policies for the City related to noise. Table below presents the community noise exposure matrix, which explains the compatibility of land uses at various noise levels and offers criteria which the City can use to evaluate land use decisions. This matrix is adapted and slightly modified from the Office of Noise Control in the State Department of Health Services guidelines for local governments to use when setting standards for human exposure to noise and preparing noise elements for general plans.

12-3: Typical Weighted Noise Levels

Land Use	Outdoor Activity Area[1] (CNEL)	Interior Areas (CNEL)
Residential	60	45
Motels, Hotels	60	45
Public/Semi-Public	65	45
Recreational	65	50
Commercial	65	50
Industrial	70	65
1. For no-residential uses, where an outdoor activity area is not proposed, the standard does not apply.		

Source: Lodi General Plan 2010, Chapter 9: Noise, page 9-9.

The following are the City of Lodi Goals, Policies and Implementation Programs from the Noise Element of the General Plan that are related to the proposed Project.

N-G1 Protect humans, the natural environment, and property from manmade hazards due to excessive noise exposure.

N-G2 Protect sensitive uses, including schools, hospitals, and senior care facilities, from excessive noise.

N-P1 Control and mitigate nose at the source where feasible, as opposed to at the receptor end.

N-P2 Encourage the control of noise through site design, building design, landscaping, hours of operation, and other techniques for new development deemed to be noise generators.

N-P3 Use the noise and land use compatibility matrix provided in the General Plan 2010 and allowable noise exposure levels as review criteria for all new land uses. Incorporate noise attenuation measures for all Projects that have noise exposure levels of "conditionally acceptable" and higher. These may include:

- Façades constructed with substantial weight and insulation;
- Sound-rated windows in habitable rooms;
- Sound-rated doors in all exterior entries;
- Active cancellation;
- Acoustic baffling of vents for chimneys, fans and gable ends;
- Ventilation system affording comfort under • closed-window conditions; and
- Double doors and heavy roofs with ceilings of two layers of gypsum board on resilient channels to meet the highest noise level reduction requirements.

N-P4 Discourage noise sensitive uses such as residences, hospitals, schools, libraries, and rest homes from locating in areas with noise levels above 65db. Conversely, do not permit new uses likely to produce high levels of noise (above 65db) from locating in or adjacent to areas with existing or planned noise-sensitive uses.

N-P5 Noise sensitive uses, such as residences, hospitals, schools, libraries, and rest homes, proposed in areas that have noise exposure levels of "conditionally acceptable" and higher must complete an acoustical study, prepared by a professional acoustic engineer. This study should specify the appropriate noise mitigation features to be included in the design and construction of these uses, to achieve interior noise levels.

N-P6 Where substantial traffic noise increases (to above 70db) are expected, such as on Lower Sacramento Road or Harney Lane, as shown on the accompanying graphic, require a minimum 12-foot setback for noise-sensitive land uses, such as residences, hospitals, schools, libraries, and rest homes.

Minimum setback of 12 feet for noise-sensitive land uses.

City of Lodi Noise Ordinance

The City of Lodi's Noise Ordinance, found in Chapter 9.24 of the Municipal Code, specifically
mandates noise limits on construction noise and ambient noise levels.

The ordinance establishes allowable levels of sound that may cross any adjacent property line, as well as prohibiting general nuisance noise and identifying a number of specific prohibitions. The City of Lodi Municipal Code regulations relevant to this Project are:

9.24.020 a. General Noise Regulations. Notwithstanding any other provision of this chapter, and in addition thereto, it is unlawful for any persons to willfully make or continue or permit or cause to be made or continued, any loud, unnecessary or unusual noise which unreasonably disturbs the peace and quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal noise sensitivity.

9.24.030 c. It is unlawful for any person, firm or corporation to cause, permit or generate any noise or sound as described herein between the hours of 10:OO p.m. and 7:00 a.m. which exceeds the ambient noise levels at the property line of any residential property as determined at the time of such reading by more than five decibels. This section shall be applicable whether such noise or sound is of a commercial or noncommercial nature.

The City of Lodi Municipal Code exempts any sound-causing equipment that has a valid City license or permit. Construction activities would need to be authorized by City construction permits before any work could begin on site. The municipal code does not establish the time period that this exempted equipment may operate. However, limits on construction hours would be determined in the special provisions for construction activities. Because this is a City Project, authorization is not needed before work can begin.

Existing Conditions

For purposes of noise impact analyses, sensitive receptors include residences, schools, hospitals, and similar uses sensitive to noise. Sensitive receptors presently located near the Project area are described below.

Noise sensitive receptors include residences, schools, hospitals, and similar uses sensitive to noise. In the proposed Project, existing sensitive receptors located adjacent to Project site include single-family residences north of Harney Lane and few single family residences are scattered south and east of the Project site amongst agricultural uses within the County jurisdiction. Additionally, within this residential neighborhood, an existing elementary school is located approximately ¼ mile north of the Project site. Noise near the proposed Project site derives mainly from vehicles from Harney Lane, West Lane, the Union Pacific Railroad corridor to the east and from adjacent agricultural uses. The measured noise levels along the railroad tracks and Harney Lane substantially exceed City of Lodi standards. Any usable outdoor space at the nearest homes without noise walls facing Harney Lane are impacted. Any modified roadway geometries or increased traffic volumes due to Projected traffic growth may further impact these areas.

Standards of Significance. A noise impact would be considered significant if it would:

- Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

- Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels;
- A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project;
- A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above the levels existing without the Project;
- For a Project located within an airport land use plan, or (where such a plan has not been adopted) within 2 miles of a public airport or public use airport, exposure of people residing or working in the Project area to excessive noise levels; or
- For a Project within the vicinity of a private airstrip, exposure of people residing or working in the Project area to excessive noise levels.

Impact Discussions

a) *Exposure of persons to or generation of noise levels in excess of standards established in any applicable plan or noise ordinance, or applicable standards of other agencies?*

Less than Significant with Mitigation. New land uses that could be allowed in the Project area following annexation under the City of Lodi's General Plan and proposed zoning would be commercial and professional offices. Existing noise levels in the vicinity of the Project site are dominated by local traffic. Nearby noise-sensitive receptors include existing residences located north of the Project site.

Noise levels associated with construction activities would be higher than the ambient noise levels in the existing Project site; however, noise levels would not be substantial and would subside once construction of the proposed Project is completed. Short-term impacts would result from heavy equipment performing earthwork for grading, delivery of construction materials, and development of the type Project. Standard construction activities such as grading, excavation, site preparation, and development of the construction Project are not expected to generate significant ground borne vibrations or ground borne noise levels. Temporary construction noise impacts will vary markedly because the noise strength of construction equipment ranges widely as a function of the equipment used and its activity level. Short-term construction noise impacts tend to occur in discrete phases dominated initially by demolition of existing structures and large earth-moving sources, then by foundation and parking lot construction, and finally for finish construction.

Short-Term (Construction) Impacts

Temporary construction noise impacts will vary markedly because the noise strength of construction equipment ranges widely as a function of the equipment used and its activity level. Short-term construction noise impacts tend to occur in discrete phases dominated initially by demolition of existing structures and large earth-moving sources, then by foundation and parking lot construction, and finally for finish construction.

Typical noise levels (dBA) from construction equipment pieces are shown below. In order to evaluate a reasonable worst-case scenario, noise from the three loudest pieces of equipment likely to operate at the same time has been evaluated. The three loudest pieces of equipment that are likely to be used are a paver, a scraper, and a truck.

Noise levels for these pieces of equipment were entered into a spreadsheet model based on FTA 2006 guidelines to generate noise levels at nearby receptors.

12-3: Typical Noise Sources

Equipment	Typical Noise Level (dBA) 50 feet from Source
Grade	85
Bulldozers	85
Truck	88
Loader	85
Roller	74
Air Compressor	81
Backhoe	80
Scraper	89
Pneumatic Tool	85
Paver	89
Concrete Pump	82

Source: Federal Transit Administration 2006b.

Noise generated during excavation, grading, and building erection on the Project site would result in potential noise impacts to adjacent noise receptive uses and to on-site uses if they were to occupy the site while later phases of construction were continuing. Existing commercial and residential uses to the north of the Project vicinity could also experience short-term noise generated by construction equipment and activities on the Project site when construction occurs near the Project boundary. In addition, the transport of workers and construction equipment and materials to the Project site would incrementally increase noise levels on access roads leading to the site. Further, because of close proximity, construction noise impacts would most likely affect the exterior nearby residential uses to the north of the property, along Harney Lane.

Discretionary scheduling of noisiest activities may be required to minimize such possible construction noise intrusion. Locating all stationary noise generating construction equipment as far as practical from existing residences can also mitigate noise. If impulsive noise generation such as pile driving or jackhammers is necessary close to noise-sensitive users, activity scheduling to minimize off-site impacts, or erection of temporary barriers, may be necessary. Construction activity noise impacts are considered less-than-significant with proper impact mitigation planning.

MITIGATION MEASURE NOI:

Implementation of the following multi-part mitigation measure for Project construction would reduce potential construction period noise impacts to less-than-significant levels:

1. Construction activities would need authorization under City issuance of construction permits before any work could commence on-site. Construction activities shall be limited to the hours of 7:00 a.m. to 10:00 p.m. Monday through Sunday, consistent with the City's Ordinance.
2. All noise-producing Project equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other

shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specification. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) must be equipped with shrouds and noise control features that are readily available for that type of equipment.

3. All mobile and fixed noise-producing equipment used on the Project that is regulated for noise output by a local, state, or federal agency shall comply with such regulation while in the course of Project activity.
4. Electrically powered equipment shall be used instead of pneumatic or internal combustion–powered equipment, where feasible.
5. Mobile noise-generating equipment and machinery shall be shut off when not in use.
6. Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors.
7. Construction site and access road speed limits shall be established and enforced during the construction period.
8. The use of noise-producing signals, including horns, whistles, alarms, and bells, will be for safety warning purposes only.

Long Term (Operational) Phase:
New land uses that could be allowed in the Project area following annexation under the City of Lodi General Plan 2010 would be commercial and professional uses, which have been addressed by the General Plan 2010 and accompanying EIR. The Project would not introduce residences on the site. However, long term operational of the Project could introduce noise impacts to the noise receptive (residences) elements currently located north of the Project site.

In areas where commercial Projects are located within noise receptive elements, it is often not the overall magnitude of the noise that leads to conflict. It is more typically some unique aspect of the noise (music, amplified voice, whine or hum, etc.), or, most commonly, the time of day of the noise event that causes conflicts. Early morning deliveries, back-up alarms, rumbling and idling diesel trucks, late night fast-foot outlet loudspeakers, HVAC units, very early trash pick-up or parking lot sweeping, are sources that can engender noise conflicts in a mixed use environment. This impacts would be reduced by effective implementation of and adherence to the following measure will reduce these identified noise impacts to a less-than-significant level.

Mitigation Measure NOI:
Implementation of the following multi-part mitigation measure for Project construction would reduce potential construction period noise impacts to less-than-significant levels:

9. A site-specific noise study shall be performed for future individual land use proposals within the Project area by a qualified acoustic specialist. If measured noise levels exceed applicable City of Lodi standards, then noise reduction measures shall be incorporated into the individual Project design to ensure consistency with the general plan noise standards. Noise reduction measures could include, but would not be limited to, noise barriers and site orientation for outdoor spaces and sound rated building constructions for indoor spaces. In addition the acoustic report shall demonstrate how noise from the Project will conform to the noise level requirements for stationary noise sources as outlined in City's General Plan and other applicable noise standards.

b) *Exposure of persons to, or generation of, excessive ground borne vibration or ground borne noise levels?*

Less than Significant. Ground borne vibrations occur when a vibration source causes soil particles to move or vibrate. Sources of ground borne vibrations include natural events (earthquakes, volcanic eruptions, sea waves, landslides, etc.) and human created events (explosions, operation of heavy machinery and heavy trucks, etc.). Implementation of the proposed Project would result in intermittent short-term and localized groundborne vibrations noise impacts resulting from construction-related activities. Vibration levels resulting from this Project would be intermittent and of short duration, especially for the construction operations that have the highest potential for producing vibration (pile driving and use of jackhammers and other equipment necessary for proposed grading work). Vibrations from non-impact construction activity typically is below the threshold of perception when the activity is more than about 50 feet from the receptor. The residences to the north are a distance greater than 50 feet. Additionally, vibration from these activities would be limited duration and would end when construction is completed. Therefore, less than significant impact is anticipated.

c) *A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?*

Less than Significant. Refer to Checklist Item, 12.a and b. above. Implementation of the proposed Plan would result in an increase in ambient noise levels beyond the low levels currently experienced in the Project area. Build-out of the proposed involves retail, restaurant, professional office, and medical facilities. The primary source of permanent noise generated by the proposed Project would be related to vehicle trips to and from the site. Project-related traffic noise is not expected to result in substantial permanent increase in ambient noise levels in the Project vicinity and would be no greater than levels as identified in the General Plan. Therefore, permanent increases in ambient noise levels resulting from the proposed Plan are considered less than significant.

d) *A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?*

Less than Significant. See b) above. Construction noise impacts resulting from future Projects with the Project area are expected to be minor and short in duration. Section 9.24.030 of the Lodi Municipal Code, which outlaws any noise or sound as described herein between the hours of ten p.m. and seven a.m., would be in effect during construction. This rule is applicable whether such noise or sound is of a commercial or noncommercial nature. Because of the small scale and short duration of the anticipated construction, compliance with the ordinance would protect against a substantial temporary or periodic increase in noise resulting from construction activities. No additional mitigation measures are required. As described under (a) and (c), above, the proposed Project would not substantially increase ambient noise levels in the Project vicinity over existing conditions. Impacts would be less than significant.

e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?

No Impact. The proposed Project would not expose people residing or working in the Project area to excessive noise levels generated by public use airports, or private airstrips. There is not an airport located within two (2) miles of the Project site. The closest airport to the Project site is the Lodi Airpark, located approximately four (4) miles southwest of the Project site, and supports twenty to thirty (20-30) operations per day. The airport's noise "footprint" does not extend beyond the immediate airport boundary. Therefore, the Project would have no impact from airport-generated noise.

f) For a Project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise levels?

No Impact. The proposed Project would not expose people residing or working in the Project area to excessive noise levels generated by public use airports, or private airstrips. There is not an airport located within two (2) miles of the Project site. The closest airport to the Project site is the Lodi Airpark, located approximately four (4) miles southwest of the Project site, and supports twenty to thirty (20-30) operations per day. The airport's noise "footprint" does not extend beyond the immediate airport boundary. Therefore, the Project would have no impact from airport-generated noise.

FINDINGS

Implementation of the above mentioned mitigation measures would reduce impacts to less than significant.

Source:

City of Lodi. *City of Lodi General Plan Final Environmental Impact Report SCH NO.* 2009022075. Prepared by Dytte & Bhatia Associates, Inc., April 2010.

_____. City of Lodi General Plan 2010. Prepared by Prepared by Dytte & Bhatia Associates, Inc., April 2010.

Blank Page

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
13.	**POPULATION AND HOUSING** *Would the Project:*				
a.	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	■	☐
b.	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	■
c.	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	■

SETTING

According to the latest California Department of Finance Report E-4, the population for the City of Lodi in the year 2009 was approximately 63,313. The City had an estimated 23,253 residential units, approximately 65% of which were detached (i.e. single-family) units. The jobs-to-housing balance is defined as a measure of an area's total employment to total housing units. When the jobs-to-housing ratio exceeds 1.0, the area is considered to have an excess of jobs, and when the ratio is below 1.0, the area is considered to have a job deficit.

Standards of significance

A population and housing impact would be considered significant if a proposed Project would induce substantial population growth, either directly or indirectly, or displace either dwelling units or residents from a Project area.

Impact Discussion

a) *Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

Less than Significant. Using an employee generation rate of 3.0 employees per 1,000 square feet of commercial retail use, including restaurants, and 4.44 employees per 1,000 square feet for office use, development of the proposed Project would result in the addition of approximately 1,125 new jobs within the City [Retail (103,350 sq. ft. X 3.0 employees per 1,000 square feet = 310 employees) + Restaurant (6,400 sq.ft. X 3.0 employees per 1,000 square feet = 19 employees) + Office (179,200 sq. ft. X 4.44 employees per 1,000 square feet = 796 employees) = 1,125 employees].

Based on the existing residence characteristics of the workforce in Lodi, it is estimated that a little more than one-third of these employees could relocate to the City. Travel time-to-work data collected by the 2000 U.S. Census indicates that approximately 10,400 workers in Lodi aged 16 and over commute less than 15 minutes to their places of employment or work at home. It can be assumed that these workers are employed within the City limits, since it would conceivably take longer

than 15 minutes to commute to jobs located outside Lodi. In 2000, the City of Lodi had 26,700 employees based on the number of resident and non-resident employees reported to the State of California Employment Development Division by firms located in Lodi. In 2000, therefore, approximately 10,400 of the 26,700 employees working in Lodi resided in the City, which equates to approximately 39 percent of the work population.

Applying this ratio to the 1,125 employment positions that would be generated by the proposed Project, it is estimated that approximately 439 of these employees could reside in the City of Lodi. If it is conservatively assumed that each of these employees forms a single new household in the City, these households could add approximately 1,229 new residents (439 households x 2.8 persons per household). However, it should be noted that this estimate is conservative since it is based on the assumption that existing City residents will fill none of the employment opportunities associated with the Project. Given that unemployment in Lodi stands at 6.1 percent, it is reasonable that some of the employment opportunities associated with the Project will be filled by current residents of the City.

The City of Lodi is Projected to increase by 8,100 residents between 2010 and 2020, the year the proposed Project will be completely built out. The population growth estimated to be associated with the proposed Project—approximately 1,229—will not result in growth exceeding this Projection. In addition, the City of Lodi is currently in the process of annexing three parcels of land which would add could add up to 2,425 units to the City housing stock. Therefore, adequate housing would exist to house future employees that may relocate to the City as a result of the proposed Project. For these reasons, population growth associated with the Project is considered less than significant.

b) *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*

No impact. The approximately 30-acre site consists of an abandoned golf driving range and agricultural land. The topography of the site is relatively flat. No residential structures are currently located at the Project site. As such, no displacement of existing housing or people would occur as a result of implementation of the proposed Project. No impact related to the displacement of housing and population would occur.

c) *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*

No impact. The approximately 30-acre site consists of an abandoned golf driving range and agricultural land. The topography of the site is relatively flat. No residential structures are currently located at the Project site. As such, no displacement of existing housing or people would occur as a result of implementation of the proposed Project. No impact related to the displacement of housing and population would occur.

MITIGATION MEASURES
No mitigation is required.

FINDINGS
No impact is anticipated.

Sources:
City of Lodi. City of Lodi General Plan Final Environmental Impact Report SCH NO. 2009022075. Prepared by Dytte & Bhatia Associates, Inc., April 2010.

California Department of Finance, E-5 City/County Population and Housing Estimates, January 1, 2008, May 2008.

California State Employment Development Division, 2000 Labor Force Data for Sub-County Area (Revised)

Southern California Association of Governments, SCAG GMA-4 Forecast and CBD Land Use Database.

2000 U.S. Census, Table P31 - Travel Time To Work For Workers 16 Years And Over.

Blank Page

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
14. PUBLIC SERVICES				
Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a. Fire protection?	☐	☐	■	☐
b. Police protection?	☐	☐	■	☐
c. Schools?	☐	☐	■	☐
d. Parks?	☐	☐	■	☐
e. Other public facilities?	☐	☐	■	☐

Regulatory Settings

City of Lodi General Plan

The Lodi General Plan Growth Management and Infrastructure Element addressed public services.

GM-G4: Provide public facilities-including police and fire services, schools and libraries commensurate with the needs of the existing and future population.

Existing Conditions

Fire Protection

The Lodi Fire Department (LFD) provides fire protection, basic life support (BLS), fire prevention, technical rescue, and hazardous materials response services to the City of Lodi. The LFD employs 48 firefighters, captains, and engineers. In addition, LFD employs 4 battalion chiefs, 2 division chiefs, 1 fire chief, 2 support staff, and 1 inspector for a total department work force of 59. LFD maintains 4 front line fire apparatus capable of 1500 GPM, one Truck Company, 100 ft aerial, 2 reserve apparatus, and various support vehicles. The LFD has 4 fire stations located throughout the City of Lodi. Station number 3 is closest to the Project site located approximately 2 miles to northwest at 2141 South Ham Lane. This station houses two engines, one currently in reserve status. Additional fire station locations that may serve the Project site include Fire Station #2 located at 705 E. Lodi, and Fire Station 1 located at 210 E. Elm (3.64 miles from the Project site.

Police

The Lodi Police Department provides law enforcement and animal services to the City of Lodi. The LPD has 117 positions including 78 Sworn Officers. The LPD will service the area that will be annexed. In addition, the LPD maintains SWAT van, 1 SWAT armored Vehicle, 1 Mobile Command Center, 1 DUI trailer, 1 Crime Prevention van, 1 FET van, 24 patrol cars, 25 undercover cars, 4 motorcycles, 1 bomb squad van, and 4 volunteer vehicles. The LPD also maintains an average of 1.25-minute emergency response time and maintains an average of 31 minutes per call at the scene of the incident.

Exhibit 14.1 – Fire Stations and Police Department Locations

Location of Police Department and Fire Stations

Schools

The Project site lies within the Lodi Unified School District (LUSD). The Lodi Unified School District provides public education for grades preschool through twelve on a traditional calendar system. The District employs 3,018 contracted employees, including 1,573 teachers. The District maintains thirty elementary schools, seven middle schools, and ten alternative schools, and three charter schools. In addition, the District currently has plans for five more elementary schools, including the one proposed as part of this Project. At present, the District employs one thousand five hundred seventy-three teachers 1,573 teachers at its facilities.

Parks and Recreation. The City of Lodi operates a total of 27 parks, natural open space areas, and sports field. Park facilities in Lodi range from mini-parks and tot lots to larger regional parks and natural open space areas, in accordance with the City of Lodi Park development standards. Several parks serve the dual purpose of a park facility and a storm drainage detention basin during the winter rainy season. The City of Lodi General Plan established a standard of 8 acres of neighborhood and community parkland per 1,000 population, including school parks and storm drainage detention basin parks, and 3.9 acres of neighborhood and community parkland per 1,000 population, excluding school parks and storm drainage detention basin parks. (More detailed discussion is provided in Recreation Section).

Significance Criteria.

The Project would have a significant impact on the environment related to public services if it would:

- Result in substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:
    - Fire protection,
    - Police protection,
    - Schools,
    - Parks, or
    - Other public facilities.
- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- Include recreational facilities or require the construction or expansion of recreational facilities that would have an adverse physical effect on the environment.

Impact Discussion

a) Fire Protection?

Less than Significant. The proposed Project would be served by the City of Lodi Fire Department. Conversion of the Project site to urban uses would require an increase in demand for fire protection services and may require additional personnel or equipment. However, all new development would be required to be constructed to meet current fire safety standards and would pay any required fees imposed by the City to provide fire protection services. As proposed, the Project would not induce significant population growth as it involves no residential development. The proposed Project would not create any new or unusual fire hazards in the area, nor create the need for increased fire protection.

Future buildings would comply with all fire safety regulations and would be compatible with local and state fire codes for the designated zoning. Additionally, the proposed Project would be subject to the City of Lodi's development impact fees. The purpose of the public facilities impact fee is to provide for police, fire and general city facilities and equipment to serve the needs of, and address the impacts from new residential, industrial, commercial, office, and other development. The proposed Project site is located in an area that is currently serviced by the County, but the City's General Plan 2010 anticipates its annexation and development. The proposed use would not adversely impact response times, staffing levels, or other performance standards that would necessitate the construction of new or expanded fire protection facilities that would have a physical impact on the environment. Impacts would be less than significant.

b) Police Protection?

Less than Significant. The proposed Project would be served by the City of Lodi Police Department. Annexation and conversion of the Project site to urban uses would require an increase in demand for police protection services and may require additional personnel or equipment. The Project would be subject to the City's impact fees as required to ensure police protection and police facilities building and equipment are adequate. Because the proposed Project would be required to pay fees, impacts to police protection services would be less than significant.

c) Schools?

Less than Significant. In 1990, school facilities legislation (California Government Code Section 65995) was enacted to generate revenue for school districts for capital acquisitions and improvements. The legislation states: "Exactions shall be limited to $1.50 per square foot of "assessable space" for residential Projects and $0.25 per square foot of "chargeable covered and enclosed space" for commercial or industrial Projects. These amounts will be adjusted for inflation every two years."

Residential land uses are not part of the proposed Project; therefore, there would not be a direct impact on schools due to an increase in residential population. However, the Project may allow for a nominal amount of employees. School enrollment could increase due to an increase in City's population to fill the additional jobs. However, it is likely that persons filling future jobs positions for Project would already live in the area or commute from outlying areas; in addition, not all employees would have

school age children. Therefore, the increase in employees at the proposed Project would not necessitate the construction of new or expanded school facilities that would have a physical impact on the environment. However, the proposed Project would pay required fees for non-residential uses imposed by the Lodi Unified School District. In addition, those employees who move into the city as a result of becoming employed at the proposed Project would either move into an area already served by schools, or into a new residential development subject to school mitigation fees. With payment of the required fee, which would fund additional and improve existing facilities, the Project would have a less than significant impact on local schools from a Project-specific and cumulative basis.

d) Parks?

Less than Significant. Recreational facilities and programs are provided through the City's Parks and Recreational Department. The closest local park to the proposed Project site is English Oaks Park on Newbury Circle, about 0.5 mile from the Project site. However, the Project would not introduce residential uses that would directly generate population growth, and thus would not directly increase the City-wide demand for parks in terms of parkland to population ratio. Nevertheless, as discussed in Environmental Issue "c" above, the Project may allow for a nominal amount of new employees beyond current numbers. Upon build out and occupation of the proposed Project there would be approximately 1,125 employees on the Project site. The Project could have an indirect effect on park whereby park usage/visits could increase due to an increase in City's population to fill the additional jobs. However, it is likely that person filling future jobs positions for Project would already live in the area or commute from outlying areas; therefore, the increase in employees at the proposed Project would not necessitate the construction of new or expanded park facilities that would have a physical impact on the environment. Impacts would be less than significant.

Regardless, the proposed Project would be required to pay fees imposed by the City to provide parks and recreational services. In addition, those employees who move to the City as a result of employment opportunities at the proposed Project would move into an area already served by parks, or a new residential development subject to park fees. Therefore, the indirect impact on parks would be less than significant.

e) Other public facilities?

Less than Significant. The Project would not contribute significantly to the demand for any other public facilities (e.g., library, senior centers, or other public facilities/services) as it would not directly introduce a new population of residents to the City. Some minor incidental demand for services may result, as such impacts would be less than significant on a Project-specific or cumulative basis.

MITIGATION MEASURES PUS:

1. The Project shall pay all applicable impact fees according to the rules and regulations in effect at the time of development.

FINDINGS

The City of Lodi has growth threshold of 2 percent per year for all residential Projects. The City has traditionally expanded at less than the growth threshold. The City's growth is consistent with City and area-wide growth expectations, and service providers have planned accordingly. The incremental effects of growth Projects are partially offset by the resulting revenues gained from an increased tax base. In addition, new mechanisms for raising revenue for public services are under active consideration by the City to fund the costs associated with new development. Therefore, the proposed Project would not have a significant cumulative impact on public services.

Sources:

City of Lodi. City of Lodi General Plan Final Environmental Impact Report SCH NO. 2009022075. Prepared by Dytte & Bhatia Associates, Inc., April 2010.

_____. City of Lodi General Plan 2010. Prepared by Dytte & Bhatia Associates, Inc., April 2010.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
15. RECREATION				
a. Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	■	☐
b. Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	■	☐

Regulatory Setting

Lodi General Plan

The Lodi General Plan Parks, Recreation, and Open Space Element addresses recreation issues. It contains the following pertinent policy.

P-GI: Provide and maintain park and recreation facilities for the entire community.

Existing Conditions

No recreational facilities have been identified in the Project area, and there are no known plans to develop new recreational facilities. The City of Lodi Parks and Recreation Department maintains 23 developed and four undeveloped park facilities and open spaces. Table 15-1 details the type and breakdown of park and basin acres for each of the existing parks and open spaces. As the table shows, basins play a large role in the provision of parks and open spaces, accounting for 34% of all parkland. Figure 15-1 illustrates the City's existing, planned, and proposed parks and open spaces.

A comprehensive Park, Recreation, and Open Space Plan was adopted in 1994, providing a detailed study, plan, and implementation strategy for parks and open space in Lodi. The General Plan builds from the standards and park types defined in this plan.

The City also owns and maintains a cultural, recreational, business, and center called *Hutchins Street Square.* The facility was originally built in 1919 as Lodi Union High School. It was burned by arson in 1974, and has transformed over the years into the vibrant community center that is now Hutchins Street Square. It offers student enrichment and adult specialty art and cultural classes, a performance theater, a senior center, a swimming pool, and a conference center. Hutchins Street Square also leases its facilities for private events. The facility is administered by the City and has an advocacy/fundraising board, The Hutchins Street Square Foundation.

Table 15-1: Lodi Park Inventory

		Acres		
Name	**Park Type**	**Park**	**Park/Basin**	**Total**
Armory Park/Chapman Field	Special Use	3.2		3.2
Beckman Park	Neighborhood	0.8	15.8	16.3
Borchardt Park	Mini/Urban	0.8		0.8
Candy Cane Park	Mini/Urban	0.2		0.2
Century Meadows Park	Neighborhood	2.7		2.7
Emerson Park	Neighborhood	3.0		3.0
English Oaks Park	Neighborhood	3.7		3.7
Grape Bowl	Special Use	15.0		15.0
Hale Park	Neighborhood	3.1		3.1
Henry Glaves Park	Neighborhood	2.8	11.3	14.0
Hutchins Street Square	Special Use	4.5		4.5
John Blakely Park	Neighborhood	10.0		10.0
Katzakian Park	Neighborhood	5.0		5.0
Lofu Park	Community	2.0		2.0
Lawrence Park	Neighborhood	2.8		2.8
Legion Park	Neighborhood	6.0		6.0
Lodi Lake Park	Regional	43.0		43.0
Lodi Lake Wilderness Area	Natural Open Space	58.0		58.0
Peterson Park	Neighborhood	2.2	19.8	22.0
Samuel D. Salas Park	Community	2.5	23.5	26.0
Softball Complex	Special Use	7.6		7.6
Van Buskirk Par	Neighborhood	1.0		1.0
Vinewood Park	Neighborhood	0.8	15.2	16.0
Zupo Field	Special Use	3.3		3.3
Total		183.9	93.6	277.5

Source: City of Lodi General Plan 2010

Exhibit 15.1 -1 City Existing and Proposed Parks and open spaces.

Significance Criteria.
The Project would have a significant impact on the environment related to public services if it would:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- Include recreational facilities or require the construction or expansion of recreational facilities that would have an adverse physical effect on the environment.

Impact discussion

a) *Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

Less than Significant. The proposed Project consists of retail, medical and professional offices, and restaurant. No residential uses are proposed. The increased demand for or use of existing parks generally is associated with the increase of housing or population in an area. The proposed facility is located within a half-mile of English Oaks Park. Although the Project will create space for additional employees, it is likely that persons filling future job positions at the new facility will already live in the area or commute from outlying areas. As a result, the proposed Project would not induce population growth, and therefore, would not increase demand on existing recreational facilities or create a need for new recreational facilities. With implementation of standard impact fees, the Project would result in a less than significant less than significant to the environment.

b) *Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

Less than Significant. The proposed Project does not include a recreational component. In addition, because the Project does not propose any residential development, conformance with the Quimby Act through parkland dedication or payment of in-lieu fees would not be required. Refer to Environmental Issue "a" above, for a discussion on the need for expanded recreational facilities. Because the Project does not propose recreational facilities or require the construction or expansion of recreational facilities, no Project-level recreational facility related impacts to the environment would occur.

MITIGATION MEASURES
No mitigation is required.

FINDINGS
The proposed Project would not result in impacts to recreational resources.

Sources:
City of Lodi. City of Lodi General Plan Final Environmental Impact Report SCH NO. 2009022075. Prepared by Dytte & Bhatia Associates, Inc., April 2010.

_____. City of Lodi General Plan 2010. Prepared by Dytte & Bhatia Associates, Inc., April 2010.

Blank Page

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
16. TRANSPORTATION/TRAFFIC *Would the Project:*				
a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	■	☐	☐
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	■	☐
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	■
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	■	☐
e. Result in inadequate emergency access?	☐	☐	☐	■
f. Result in inadequate parking capacity?	☐	☐	☐	■
g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	■	☐

Regional Roads

The Project site is located south of the City of Lodi, in an unincorporated part of San Joaquin County. The Project site is served by the following regional roadways as described below:

- Interstate 5 (*I-5*) is a north-south interstate highway that extends from Southern California into Oregon and Washington. I-5 is located approximately 6 miles west of the Project site. I-5 has six lanes in the immediate vicinity of the Project site and four lanes north of State Route 12 (SR 12). Access to and from I-5 is provided by the SR 12 and Turner Road Interchanges.

- *State Route 99 (SR 99)* is located to the east of the Project and travels north-south through the Project area. The limited access highway has six-lanes (three in each direction) in the area adjacent to the Project location. SR 99 provides access between Bakersfield (south of Lodi) to Sacramento (north of Lodi). SR 99 has interchanges in the vicinity of the Project at Kettleman Lane (SR 12), Harney Lane and Armstrong Road.

- *Kettleman Lane (SR 12)* is located north of the Project site and is primarily a four-lane roadway. Kettleman Lane travels east-west through the Project area and is continuous

between Fairfield (west of Lodi) and Valley Springs (east of Lodi). The highway is four-lanes wide (two-lanes each direction) through the Project area.

Local Access Roads

Local access to the Project site is provided by Armstrong Road, West Lane, and Harney Lane.

- *Armstrong Road* is two-lane east-west local roadway that extends west of Lower Sacramento Road and east of SR 99. Armstrong Road does have an interchange with SR 99 and is the southern limits of the Project area.
- *West Lane/South Hutchins Street* is a four-lane north-south arterial that provides direct access to the Project. The roadway is located along the east edge of the Project site and continues south to the City of Stockton. The roadway changes names and becomes Hutchins Street north of Harney Lane.
- *Harney Lane* is a two-lane east-west collector that provides direct access to the Project. The roadway is located along the north edge of the Project site and does have an interchange with SR 99.

The City of Lodi General Plan's vision of Harney Lane is a four-lane expressway with a raised landscaped median. The City of Lodi is preparing a Specific Plan for Harney Lane, which will become major east-west connector that serves the south side of the City of Lodi.

Other Roadways

- *Lower Sacramento Road* is a four-lane arterial that is located west of the Project, travels north-south.
- *Cherokee Lane* is a two to four-lane local roadway that travels north-south parallel to SR 99. The roadway is located west of SR 99 and provides direct access between the SR 99 interchanges at Kettleman Lane and Harney Lane.
- *West Frontage Road* is a two-lane roadway paralleling SR 99 and provides direct access between the interchanges at Harney Lane and Armstrong Road. The road continues south of Armstrong Road into the City of Stockton. The frontage road becomes Cherokee Lane north of Harney Lane.
- *East Frontage Road* is a two-lane roadway paralleling SR 99 and provides direct access between the interchanges at Harney Lane and Armstrong Road. The road continues south of Armstrong Road into the City of Stockton. The frontage road terminates into a private driveway north of Harney Lane.

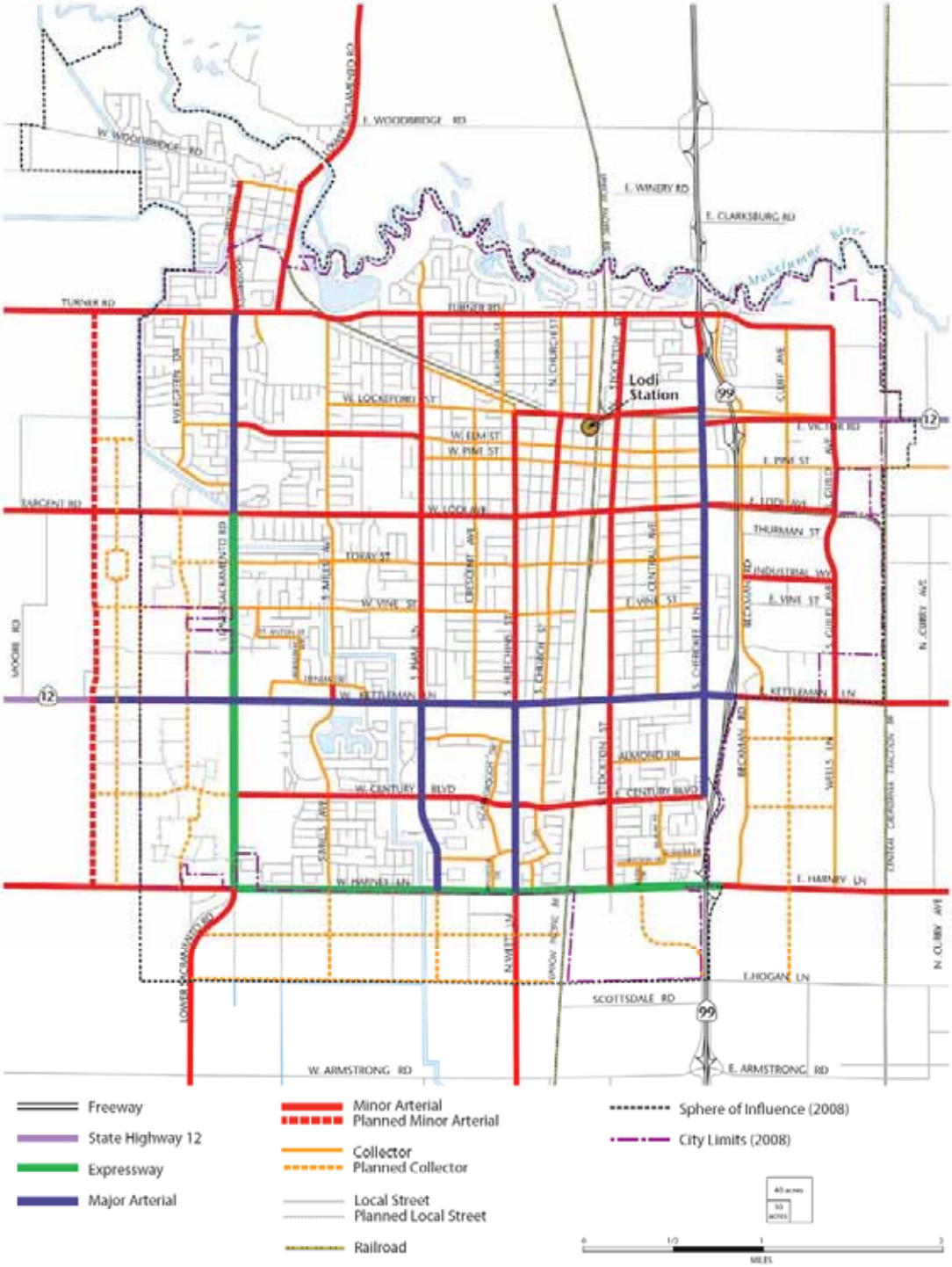


Exhibit 16.1 - General Plan Roadway System

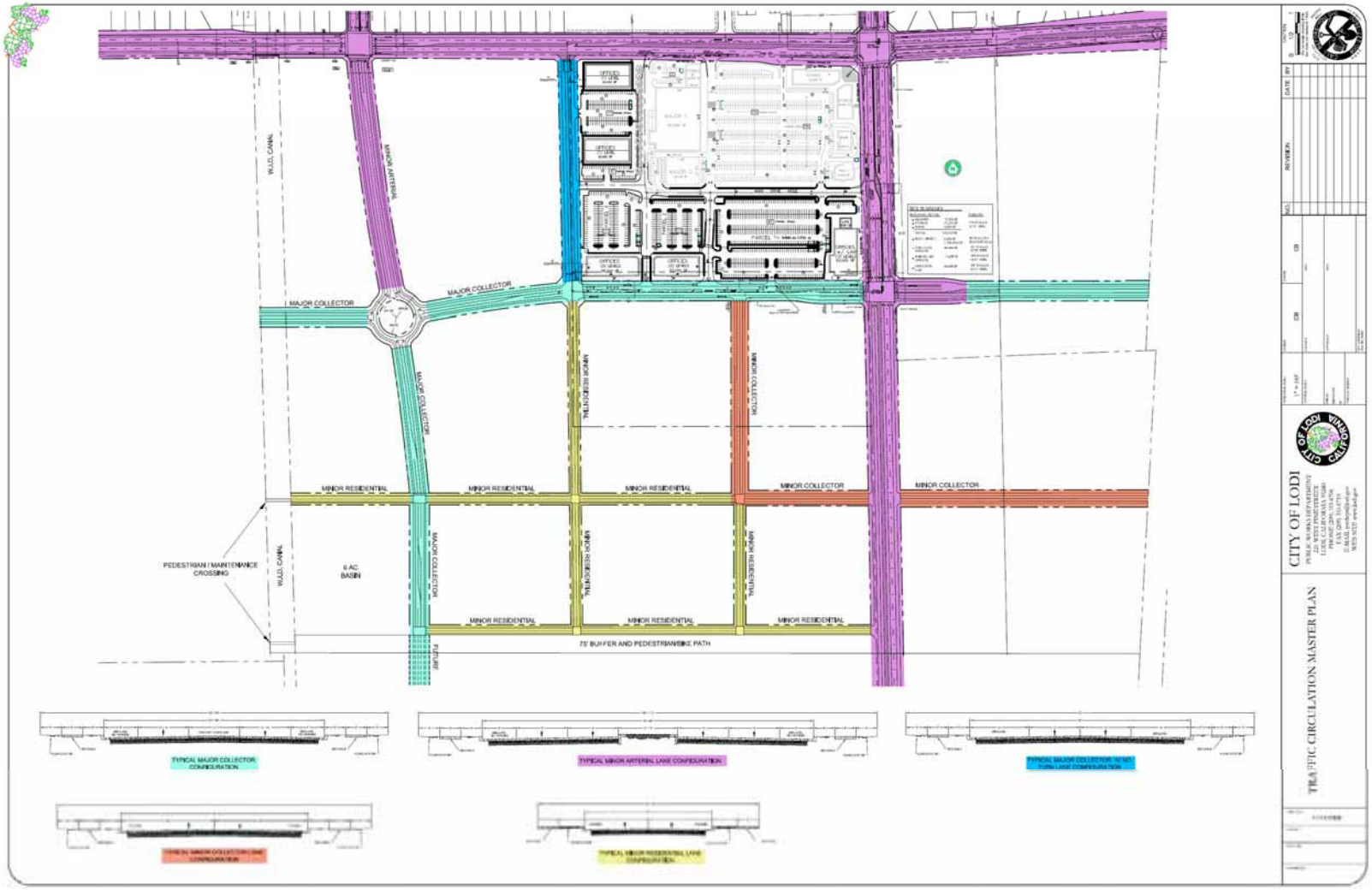


Exhibit 16.2 –Traffic Circulation Master Plan

Transit

The proposed Project area is served by City bus transit which is available in the immediate vicinity. The City's transit services are described below.

Lodi Grapeline

The Lodi Grapeline operates five local and three express bus routes with the nearest service located at Cherokee Lane and Almond Drive. Dial-A-Ride service is also provided by the Lodi Grapeline. Express Line run along Harney Lane between Melby Street and Hutchins Street.

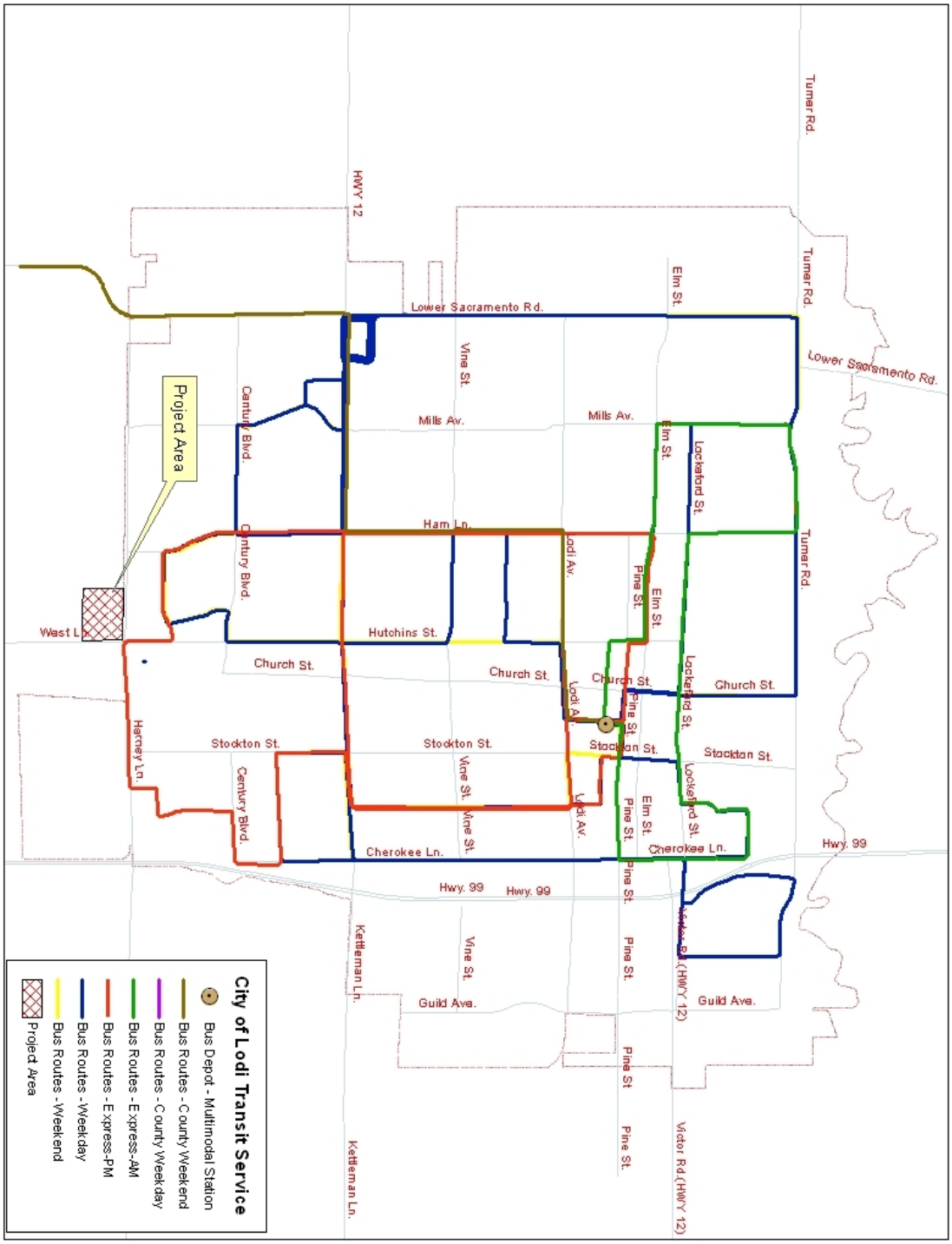
San Joaquin Regional Transit District

The San Joaquin Regional Transit District provides both Dial-A-Ride and fixed-route services to unincorporated San Joaquin County. Service is provided between the City of Stockton and the City of Lodi downtown Transportation Station.

South Sacramento Transit

The SCT Link provides regional services between the City of Lodi, City of Galt, and City of Sacramento.

Exhibit 16.3 - City of Lodi Transit System



Bicycle Existing Conditions

Bicycle facilities include bicycle paths (Class I facilities), bicycle lanes (Class II facilities), and bicycle routes (Class III facilities). Bicycle paths are paved trails that are separated from the roadways. Bicycle lanes are lanes on roadways designated for use by bicycles by striping, pavement legends, and signs. Bicycle routes are on roadways that are designated for bicycle use with signs but have no designated lanes. Bicycle lanes on streets closest to the Project site are provided on Hutchins Street, Lower Sacramento Road, Kettleman Lane and on Harney Lane between North Sacramento Road and South Hutchins Street.

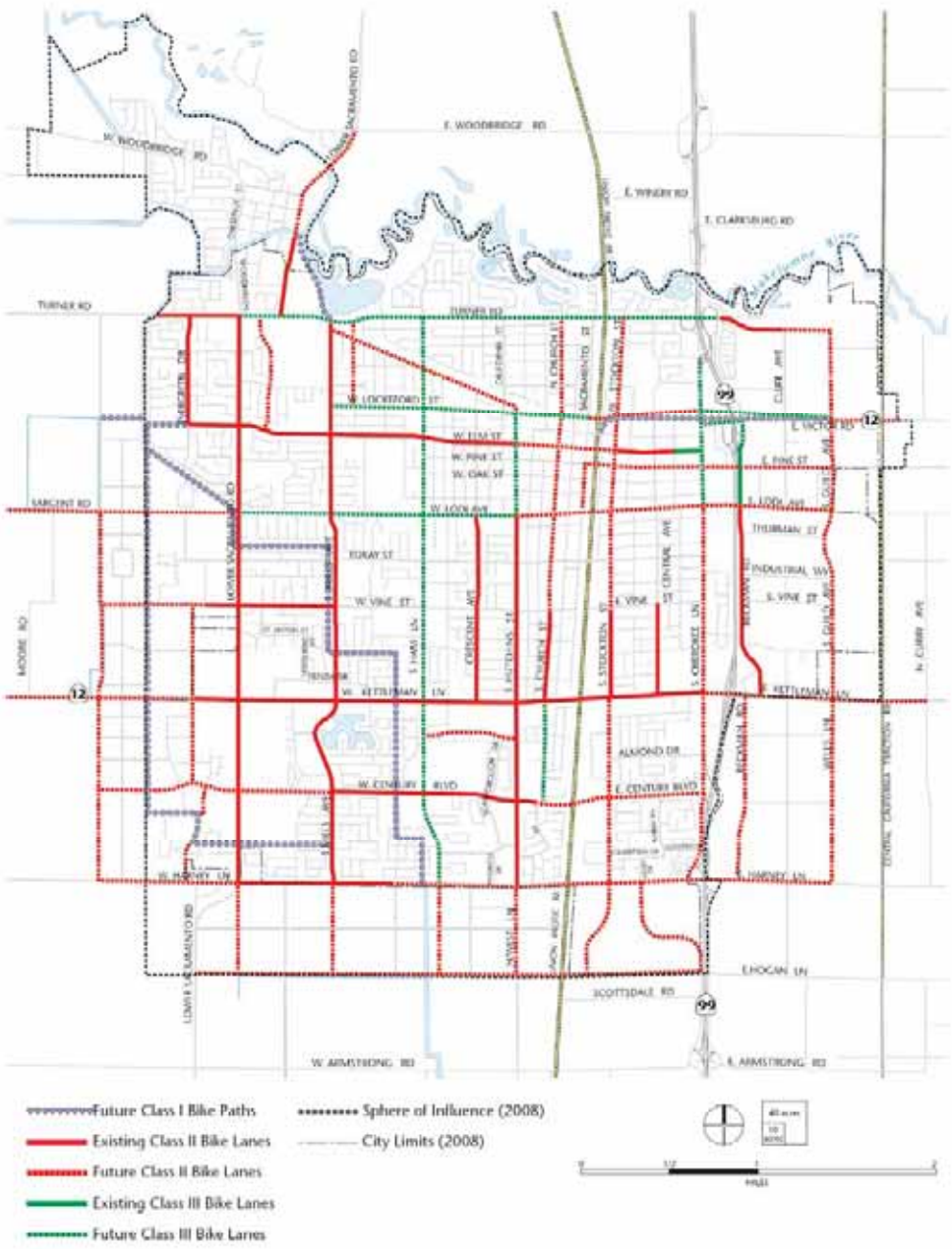


Exhibit 16.4 - City of General Plan Bicycle System

Pedestrian

Pedestrian facilities include sidewalks, pedestrian paths, crosswalks, pedestrian signals, and other amenities. Sidewalks exist on Harney Lane along the City limits while southern end of Harney Lane is within the County jurisdiction and is primarily undeveloped. The existing sidewalks along northern part of Harney Lane vary from 4 feet to 7 feet wide. Once Harney Lane Specific Plan is implemented, sidewalks would be installed and would vary from 5 feet along residential districts to 7 feet along commercial frontage.

Intersection Performance (Levels of Service)

The best measure of how well an urban street system is working is to determine the amount of congestion or delay experienced by motorists at key intersections. The quality of traffic movement is reported in terms of Level of Service (LOS) ranging from a letter grade of A to a grade of F. At LOS A, an intersection experiences little or no congestion, while LOS E and F indicate long and unacceptable delays for drivers.

According to the City of Lodi's General Plan EIR 2010 and the City's General Plan 2010, adopted in April 2010, LOS D conditions are acceptable standard on all streets in the City, including for Routes of Regional Significance in the County Congestion Management Program. In addition, the City's General Plan establishes

T-P12: For purposes of design review and environmental assessment, apply a standard of Level of Service E during peak hour conditions on all streets in the City's jurisdiction. The objective of this performance standard is to acknowledge that some level of traffic congestion during the peak hour is acceptable and indicative of an economically vibrant and active area, and that infrastructure design decisions should be based on the conditions that predominate during most of each day.

T-P20: In new development areas, include pedestrian connections to public transit systems, commercial centers, schools, employment centers, community centers, parks, senior centers and residences, and high-density residential areas.

T-P25: Establish standards requiring new commercial and mixed-use developments (of sizes exceeding certain minimum thresholds) to provide shaded and convenient bicycle racks, as appropriate. When such facilities are required, use specifications provided in Caltrans' Design Manual, Section 1000, or other appropriate standards.

T-P33: Require new development to provide transit improvements where appropriate and feasible, including direct pedestrian access to transit stops, bus turnouts and shelters, and local streets with adequate width to accommodate buses.

As detailed in the Project description, the proposed Project is located on a 30-acre site, which lies outside of the current City boundaries but within the southwest section of the City of Lodi's Sphere of Influence. The Project proposes a mix of retail and office uses including the entire infrastructure needed to support future development of the site. The proposed Project would include the following land uses: a retail center, a restaurant and medical office uses. In total, implementation of the proposed Project would result in the development of up to 103,350 square feet (sf) of commercial/retail use, 6,400 sf of restaurant use, and 179,200 sf of office space, including 3,000 sf of laboratory space, for a total of *288,950* sq. ft. buildings.

Significance Thresholds

The significance criteria is based upon the City of Lodi's goal for intersections and roadway segments to operate at LOS D or better; and in general, peak hour a LOS E or better that degrades to a LOS F or worse is considered significant direct impact. A cumulative impact can occur if the intersection level of service is already operating below City/County standards and the Project increases the delay by more than two seconds. A traffic increase, traffic hazard, or parking deficiency would be considered in this analysis to be "substantial" if any of the following criteria are met:.

- Operations (LOS) at an unsignalized intersection deteriorate from an acceptable level (LOS E or better) under existing conditions to an unacceptable level;
- Project traffic causes a traffic signal warrant to be met;
- Project design results in inadequate emergency access;
- Project site design is inadequate such that it may deteriorate circulation, sight distance, or emergency vehicle access;
- Parking space requirements of the City of Lodi are not met and/or parking is not adequate in number or design to serve the proposed Project; or
- Project construction vehicle traffic may cause significant traffic impacts or, or damage to, local roadways.

Impact Discussion

a) *Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)? Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?*

Less Than Significant with Mitigation. The Project site located on a 30-acre site, which lies outside of the current City boundaries but within the southwest section of the City of Lodi's Sphere of Influence. This area is envisioned by the City's General Plan as a commercial mixed-use urban environment that could accommodate a mix of retail and office uses.

Trip Generation. The Institute of Transportation Engineers (ITE) has developed traffic generation rates for a wide variety of land uses. The City of Lodi Municipal Code requires that the ITE publication, *Trip Generation, 7th Edition* be used to determine the daily, AM and PM peak hour traffic generated by the project. The ITE trip generation rates for the various uses are detailed in Table 16-1 below. Table 16-3 details trip distribution. Traffic from the proposed Project was assigned to the surrounding street network based upon existing traffic patterns in the area.

A shopping center (ITE Code 820) would generate more daily trips than general office or medical office uses. During the AM peak hour, a Medical-Dental offices would generate the most amount of traffic followed by general office uses. Restaurant and bank uses would generate the least amount of AM peak hour traffic, however, shopping center store would generate fewer trips than all of the uses with the exception of quality restaurant. During the PM peak hour, a shopping center would

generate the most trips. Medical-dental and general offices uses combined would generate fewer trips than a shopping center.

Table 16-1: Trip Generation

Land Use	Square Footage	Equation/Av Rate	Daily Trips	AM Peak			PM Peak			Pass-By Reduction (ITE Value)	Pass-By Reduction (25%)	Total (Based on 25%)
				In	Out	Total	In	Out	Total			
Medical-Dental Office (ITE Code 720)	68,000	T=40.89(X)-214.97	2,566	160	83	243	121	181	302	N/A	N/A	302
General Office Bldg. (ITE Code 710)	111,200	Ln(T)=0.77Ln(X)+3.65	1,448	180	24	204	34	169	203	N/A	N/A	203
Restaurant (ITE Code 932 - Sit Down)	6,400	127.15	814	45	42	87	66	54	120	52	30	90
Bank (ITE Code 912 - Drive-in)	5,000	T=182.34(X)+256.87	1,169	75	73	148	136	131	267	126	67	200
Shopping Center (ITE Code 820 - Shopping Center)	98,350	Ln(T)=0.65Ln(X)+5.83	6,718	95	60	155	297	322	619	211	155	464
Total:	**288,950**		**12,714**	**555**	**282**	**837**	**654**	**857**	**1,512**	**388**		**252**

For the restaurant, bank, and shopping center uses, the number of new trips is reduced due to pass-by traffic. Pass-by trips are vehicular trips already on the roadway system, which are diverted to the new land use from the existing traffic flows. Therefore, the net new number of trips that is actually added to the system is the calculated trips based upon the ITE rates in Table 16-1 (above). For medical and general offices uses, the pass-by reduction percentage is 25 percent while restaurant, shopping stores and bank uses experience average reduction of 43, 47 and 36 percent, respectively. The office component of the project does not have a pass-by trip element. The number of pass-by trips for each of these uses is detailed in Table 16-2.

Table 16-2: AM-PM Peak Hour Trip Generation

Land Use	ITE CODE	Square Footage	Pass-By Reduction (ITE Value)	Pass-By Reduction (25%)	Total (Based on 25%)
Medical-Dental Office	720	68,000	N/A	N/A	302
General Office Bldg.	710	111,200	N/A	N/A	203
Restaurant	932	6,400	52[2]	30	90
Bank	912	5,000	126[3]	67	200
Shopping Center	820	98,350	211[4]	155	464

These land uses are subject to pass-by traffic reductions.

The Project is expected to generate 12,714 daily vehicle trips. However, the total number of trips generated by the Project is consistent with the City's General Plan expectations. The City's General Plan anticipates the Project to develop as mix of general commercial, retail and medical/professional office uses. To mitigate traffic circulation, the City's General Plan calls for two specific mitigation measures: First, the General Plan calls for widening of Harney Lane into a four lane express way with raised medians. Second, the General Plan calls for major collector streets

[2] ITE Value= 43%
[3] ITE Value= 47%
[4] ITE Value= 34%

along the southern and western boundaries of the Project site. This is consistent with the City's traffic circulation master plan for the vicinity of the Project area, as illustrated in Exhibit 16-2 :Traffic Circulation Master Plan.

It is important to note there are instances when the total number of trips generated by a site is different from the amount of new traffic added to the street system by the generator. For example, retail–oriented developments such as the proposed Project often locate adjacent to busy streets in order to attract motorists already on the street. These sites attract a portion of trips from traffic passing the site on the way from an origin to an ultimate destination. These retail trips may not add new traffic to the adjacent street system. The trips attracted from traffic passing the site on an adjacent street are called pass-by trips. It should also be noted that medical facilities are often used by a substantial number of clients who would arrive by means other than driving alone. Patients frequently arrive to medical facilities on public transportation, on foot or often are brought to the facility by others. This greatly reduces the number of trips to the site. However, an adequate estimate of this reduction cannot be determined prior to operation.

The direction of travel (trip distribution) of Project trips is based on existing traffic counts collected at the study area intersections, the roadway network near the Project area, and the general location of expected users of the proposed facilities in relation to the Project site. Table 16-3 summarizes the traffic distribution assumed for this traffic study. Using these distribution percentages, Project traffic is assigned to the adjacent roadway network.

Table 16-3: Trip Distribution

Description	Percentage Distribution
Harney Lane - West	30
Harney Lane East to East of SR-99	5
Hutchins Street - North	10
West Lane – South	15
Stockton Street – North	10
State Route 99 – North	20
State Route 99 – South	10

The expected Project-generated trips were then distributed on the street network to determine potential impacts. Intersections were analyzed for Project impacts both under existing traffic conditions, existing plus Project and existing plus Project plus cumulative conditions (that assume the completion of a series of Projects that are now under construction, have been approved, or are pending approval by the City and/or State jurisdictions). The addition of the AM and PM peak hour traffic generated by the proposed Project to existing traffic levels would exacerbate the delays at each of the analysis locations. However, no significant impacts would result from the addition of project traffic at the analysis intersections, since all intersections would continue to operate at LOS E or better. The City's Capital Improvement Program includes Harney Lane Specific Plan, which would widen Harney Lane to a four lane facility.

Although the proposed Project would result in significant impacts to the roadway capacity on a Project-specific and cumulative basis, implementation of mitigation measures outlined by the City's General Plan would reduce impacts to a less than significant levels. Additionally, the Project developer would be required to pay mitigation fees in accordance with the City of Lodi requirements. The City of Lodi also administers and enforces City Municipal Code Section 15.64.030 Development Impact Funds (fee), which assesses a traffic impact fee to address developments' cumulative transportation impacts. This program provides intersection and roadway improvements in the Project's area, including widening of Harney Lane, and construction of two new arterial streets along the southern and western borders of the Project site. The Project will participate in paying Transportation Impact Fees as determined necessary for impacts as required by the City's ordinance.

MITIGATION MEASURE TRANS:

1. The Project shall be subject to Development Impact fees as outlined in City's Municipal Code Section 15.64.030.

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

Less than significant. The San Joaquin County Congestion Management Program (CMP) documents the existing and future conditions along the County's Congestion Management Agency (CMA) roadway system. The San Joaquin County Lodi County Congestion Management Plan (CMP) requires a regional traffic impact analysis when a Project adds 50 or more peak hour vehicles to a CMP Highway system intersection or 150 or more peak hour trips to a mainline freeway link. Based on City's analysis, the Project would not meet this threshold. Therefore, a regional traffic impact analysis is not necessary, and impacts to the CMP standards would be less than significant

C) Result in change in air traffic patterns, including either an increase in air traffic levels or a change in location that results in substantial safety risks?

No Impact. The Project site is located roughly two miles from the Lodi Airpark and approximately four miles from the Kingdon Executive Airport. The Project site is located more than 500 feet from the runway centerline of each runway and does not propose buildings that could present a hazard to aircraft. As a result, the proposed Project would not cause changes to air traffic patterns, and no impact would occur.

d) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?

Less Than Significant. An evaluation of the on-site circulation plan and access to the site found that the widths of the travel lanes, access and egress from the site and other general traffic circulation components are acceptable. The proposed Project includes three access points west of Harney Lane and West Lane intersection, two access points south of Harney Lane and West Lane intersection, and two proposed collectors streets that would provide numerous access points. However, the

proposed Project would not alter the design of any existing roadways or construct new roadways that would include dangerous design features or result in incompatible uses. A queue analysis was conducted at east bound Harney Lane driveways closest to the intersection for the AM and PM peak hours. The existing left turn lane provides approximately 70 feet of storage. Based on this analysis, less than significant impact is anticipated.

e) Result in inadequate emergency access?

No Impact. The travel lanes and other points of access and egress on the site appear adequate to accommodate emergency vehicles as well as on-site motor vehicles. The City Fire Department has confirmed that the limited obstruction of the access easements during loading is acceptable as long as one full travel lane remains open during the unloading operation.

f) Result in inadequate parking capacity?

Less than significant. Title 17, Chapter 17.60.100 of the City of Lodi Municipal Code provides standards for the provision of off-street parking spaces for a variety of land uses. Therefore, the proposed Project is required to provide parking spaces per the municipal code for Medical offices, retail, professional office and restaurant use type. Table 16-4 provides description of a number of off-street parking spaces required for each use.

Table 16-4: Summary of Proposed Land Uses and Parking

Land Uses	Area (sq .ft.)	Parking Spaces		
		Proposed	*Required*[5]	*Difference*
Retail				
Major retail store	71,100		356[6]	
Smaller accessory commercial stores	27,250	517	136[6]	**8**
Bank	5,000		17[7]	
Total	**103,350**	**517**	**509**	**8**
Restaurant				
Restaurant	6,400 (240 seats)	80	60[8]	20
Total	**6,400**	**80**	**60**	**20**
Office				
Office	111,200	451	445[9]	6
Medical Office with laboratory	68,000	453	340[10]	113
Total	**179,200**	**904**	**785**	**119**
Overall Total	***288,950***	***1,501***	***1,354***	***147***

As illustrated on the site plan, the total number of parking spaces proposed exceeds the total number of spaces required by the City code. The code requires development of this type provide a total of 1,354 parking spaces for the entire development based on a ratio prescribed by the City of Lodi Municipal Code. The

[5] Lodi Municipal Code 17.60.100.

[6] General Commercial - 1 space per 500 square feet.

[7] Banks – 1 space per 300 square feet.

[8] Restaurants - 1 space per 4 seats.

[9] Business and Professional – 1 space per 250 square feet.

[10] Medical Office – 1 space per 200 square feet.

development proposes a total of 1,501 parking spaces, which exceeds the Code requirement by 147 parking spaces. Accordingly, impacts to parking capacity would be less than significant.

g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?

Less Than Significant Impact. The proposed Project would involve incremental new demands on existing pedestrian, bicycle and transit systems. There is an existing transit service along Harney Lane east of the Project site. The nearest bus stops are currently located north and east of the Project area, some ½-mile away. The Project would instigate modifications to the transit network surrounding the Project site. Specifically, the existing fixed route does not serve the proposed Project area. A transit study needs to be conducted to look at new routes or modified routes to serve the Project area.

MITIGATION MEASURE TRANS:

2. The Project proponent shall pay for a transit study to determine required modifications to the existing transit service.

Pedestrian and Bicycle

The Project would potentially generate pedestrian and bicycle traffic. Sidewalks are present along northern portion of Harney Lane. The City's General Plan designates bike routes along Kettleman Lane. The proposed Project would not permanently obstruct any sidewalks or bike routes. The existing sidewalks and bike route system would be expected to accommodate any additional pedestrian traffic generated by the Project. Furthermore, the proposed Project would abide by all applicable City of Lodi alternative transportation requirements. Since no existing alternative transportation facilities would be impacted by the proposed Project, impacts would be less than significant.

Further, as mentioned previously, the City of Lodi is preparing a Specific Plan for Harney Lane, which is a major east-west connector that serves the south side of the City of Lodi. The City of Lodi General Plan's vision of Harney Lane is a four-lane expressway with a raised landscaped median. The limits of the Harney Lane Specific Plan that will be presented at the Public Information Meeting on June 8 extend from the City limits west of Lower Sacramento Road to Stockton Street on the east. The proposed Project would not interfere with the pending specific plan.

MITIGATION MEASURE TRANS:

3. As part of the subdivision review process, a roadway improvement plan shall include, but not be limited to providing, the following items: 1) identify all entry/access points for all future development within the Project area to ensure proper intersection control and signage, 2) show adequate sight distance in consideration of grading an landscaping at all intersections and drive entries, and 3) identify all bikeways, and sidewalks within the Project area. Submittal of the above information is intended to address any potential for vehicle and pedestrian conflicts in the development of the Project roadway plan and ensure safe and adequate access for all residents and businesses within the Project site.

FINDINGS

The Project would result in less than significant impacts to transportation or circulation with implementation of the above mitigation measure.

Sources:

City of Lodi. City of Lodi General Plan Final Environmental Impact Report SCH NO. 2009022075. Prepared by Dytte & Bhatia Associates, Inc., April 2010.

Blank page

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
17. UTILITIES AND SERVICE SYSTEMS *Would the Project:*				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	■	☐	☐
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	■	☐
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	■	☐	☐
d. Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	■	☐
e. Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's Projected demand in addition to the provider's existing commitments?	☐	☐	■	☐
f. Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?	☐	☐	■	☐
g. Comply with federal, state, and local statutes, and regulations related to solid waste?	☐	☐	■	☐

Regulatory Setting

Lodi General Plan

The Lodi General Plan Growth Management and Infrastructure Element addresses utilities and service systems. It includes the following relevant policy:

GM-G2: Provide infrastructure-including water, sewer, stormwater, and solid waste/recycling systems-that is designed and timed to be consistent with Projected capacity requirements and development phasing.

Water

As indicated in the Project description, the Project site is located outside of the southern City limits. The City of Lodi and the majority of the area surrounding Lodi rely on groundwater as their source of domestic water supply. The City provides water to its customers from a series of 27 wells drawing on 150 foot to 500 foot deep aquifers. A "safe yield" of approximately 15,000 acre-feet per year (AFY) has been estimated for the aquifer serving as the source of the City water supply based on water balance calculations. The City of Lodi has adopted and maintains an Urban Water Management Plan to Project future demands and to ensure that the

supply of urban water is provided in a manner suitable to serve the demands of future growth. The City currently uses groundwater as its sole source of supply through a network of 27 productions wells in operation, which have a capacity of 35,210 gallons per minute or 50.7 million gallons per day (MGD). The wells operate automatically on demand and pump directly into the distribution system. Seven of the wells are fitted with emergency diesel-powered generators to maintain water pressure during power outages.

As part of a regional effort to stabilize the groundwater basin, the City plans to reduce its groundwater pumping. To achieve this goal, the City contracted with Woodbridge Irrigation District (WID) in May 2003 to purchase 6,000 acre-feet per year (AFY) of WID's pre-1914 Mokelumne River water entitlement for a period of 40 years (City of Lodi and WID, 2003). The City is in the process of constructing a Surface Water Treatment Facility (SWTF). The SWTF is part of a conjunctive use program that would integrate surface water and groundwater management. The surface water component would be the WID water that would be delivered to the SWTF for treatment and distribution to the City. The groundwater component would be well water that is currently pumped for distribution to the City. With the implementation of the SWTF, a treated water pipeline would deliver water to the City's existing water distribution system. As a result, the City would pump less groundwater and the groundwater levels would be allowed to recover by in-lieu (natural) recharge. The treated surface water supply would account for about one-third of the total delivery into the water distribution system, on average, but would potentially range under current demand conditions from 18 to nearly 100 percent of the total delivery depending on day-to-day water demands. The remainder of the water supply would be groundwater, supplied by the City's 27 existing wells and one planned well, which would be improved to meet regulatory requirements.

Wastewater

The City owns and operates the wastewater collection system within its corporate limits. The collection system includes separate domestic and industrial sewers and related pumping facilities. Untreated wastewater is piped to the City's treatment plant through pipes, utilizing both gravity flow and lift stations, where appropriate. The City also owns the treatment facilities at the White Slough Water Pollution Control Facility (WSWPCF) located approximately 6 miles southwest of the City. The City has adopted and maintains a *Wastewater Master Plan* to estimate future infrastructure and service demands within Lodi. Upgrades and improvements to the infrastructure and plant can provide sewer service to the Project area. The City's domestic sewage treatment plant has the capacity to treat 8.5 million gallons per day (mgd) at completion of the current expansion Project.

Storm Drainage

The Project proposes a stormwater implementation plan, which entails construction of an onsite retention basin in accordance with City of Lodi standards and general engineering practices (see Figure 17-1). The proposed onsite retention basin located at the southwest corner of the project site. The selection of this site was based on the topography of the site and the opportunity to minimize excavation for this facility. The basin will be designed in conformance with City standards and is engineered with a capacity of 100-year rain event.

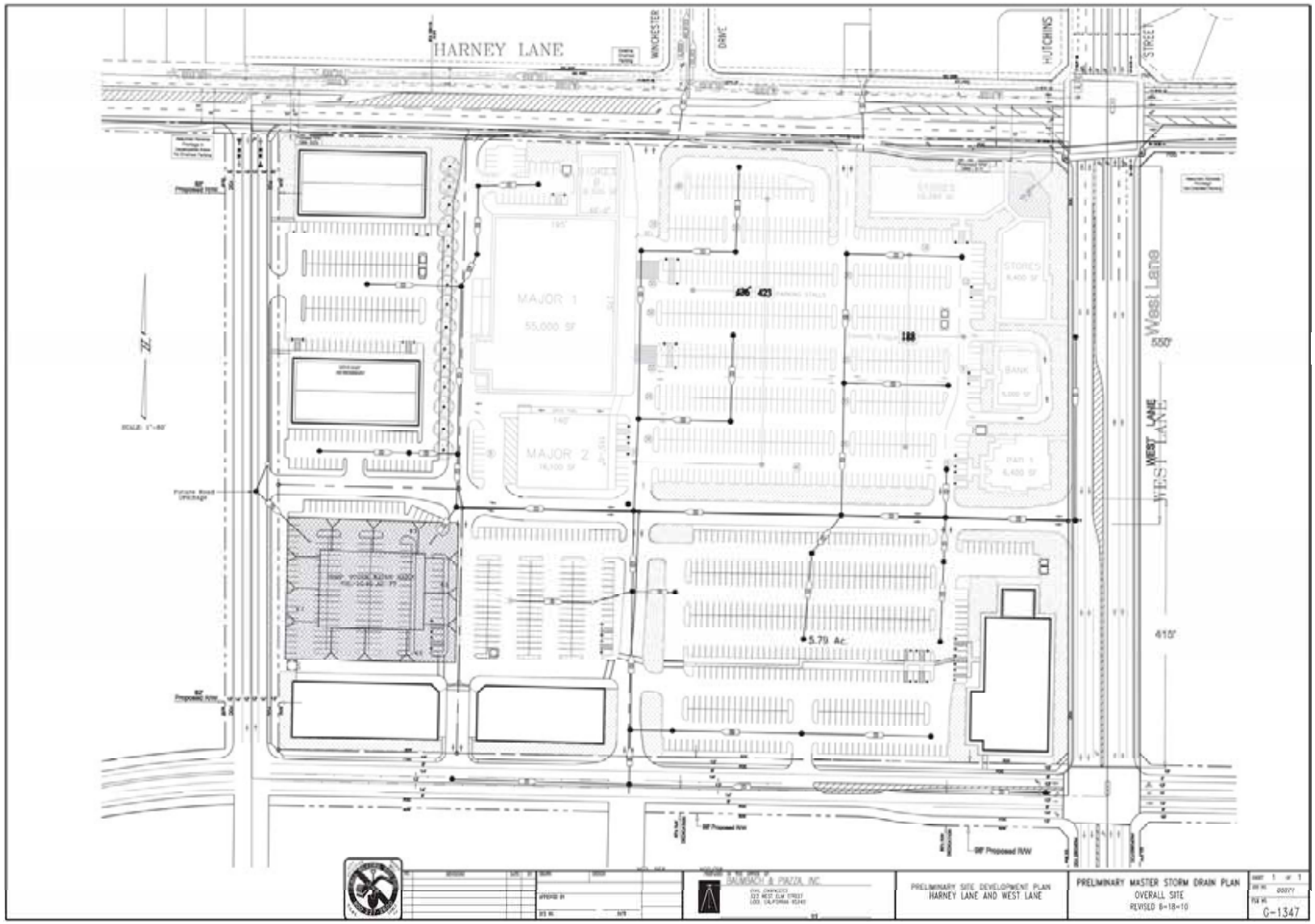


Figure 17.1 – Proposed Conceptual Storm Drain Plan

Blank Page

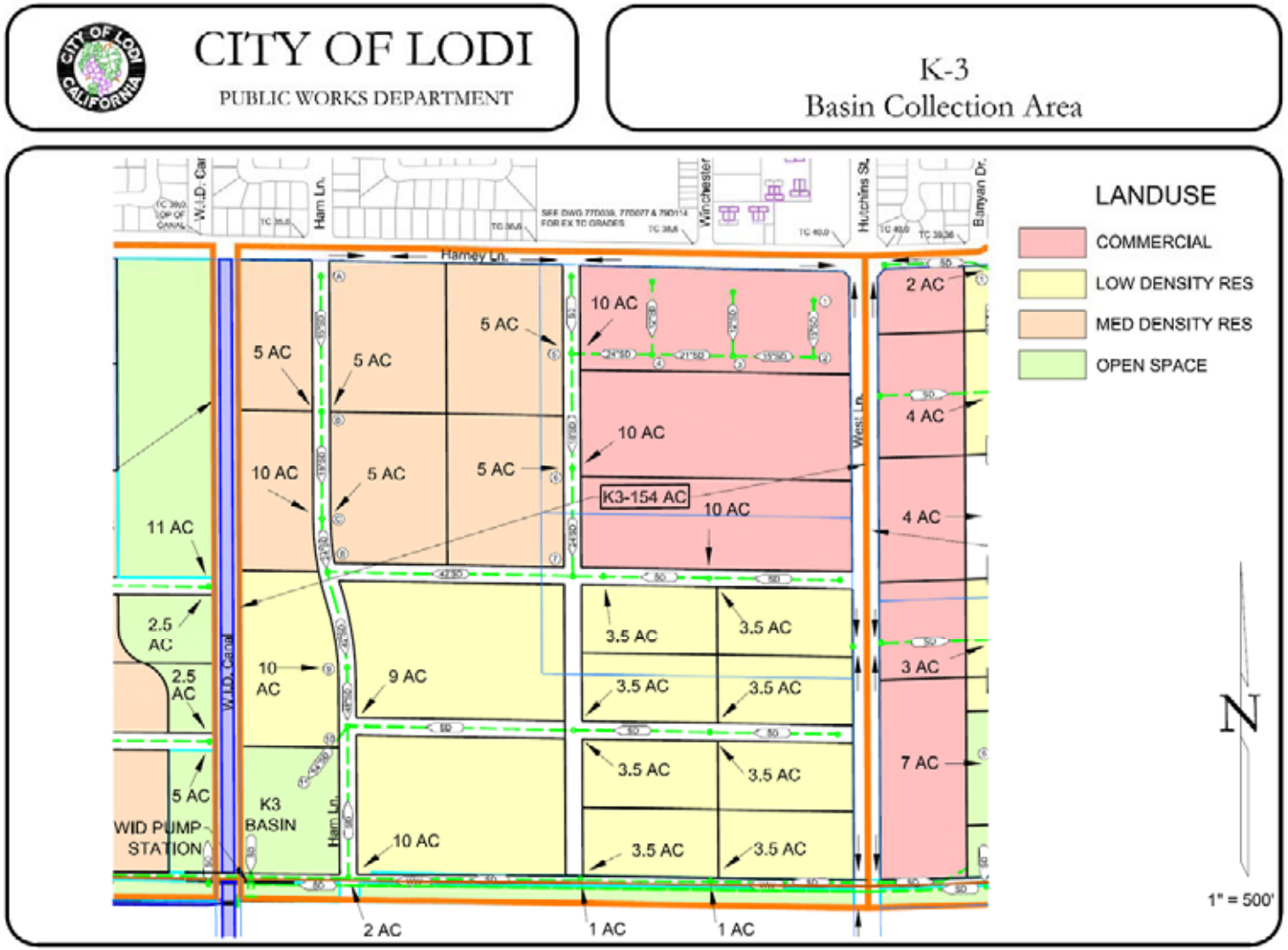


Figure 17-2 – City's Stormwater System Plan

Blank Page

Energy Service

Lodi Electric and Utility Department (EUD) provides electricity to the City of Lodi and the Project vicinity. EUD is customer-owned and City operated to offer local residences competitive prices and service. Pacific Gas and Electric Company (PG&E) currently provides natural gas service to existing development in the Project vicinity. Electrical and gas facilities are located along Harney Lane and Hutchins Street/West Lane. PG&E is a state-regulated utility that is obligated to extend electrical and gas service to existing and new development within its service area.

For 30 years, the Lodi Electric Utility has been a member of the Northern California Power Agency (NCPA), which is a collective comprised of utilities that own and operate their own power plants. The NCPA is a California Joint Action Agency, with membership open to municipalities, rural electric cooperatives, irrigation districts and other publicly owned entities interested in the purchase, aggregation, scheduling and management of electrical energy. The NCPA allows the Lodi Electric Utility to purchase and supply electricity at cost.

Standards of Significance

The California Environmental Quality Act (CEQA) Guidelines, Appendix G indicate the Project may be deemed to have a significant impact to utilities and service systems if it would:

- Be served by a landfill with insufficient permitted capacity to accommodate the Project's solid waste disposal needs;
- Not comply with federal, state, and local statues and regulations related to solid waste;
- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- Not have sufficient water supplies available to service the Project from existing entitlements and resources, requiring new or expanded entitlements;
- Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has inadequate capacity to serve the Project's Projected demand in addition to the provider's existing commitments; or
- Require or result in the construction on new water or wastewater treatment facilities, the construction of which could cause significant environmental effects.

Impact Discussion

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less Than Significant with Mitigation. No public wastewater treatment or disposal service is available to the Project area. The Project would be required to connect to the City mains upon annexation to the City of Lodi in order to dispose of wastewater or provide other suitable methods of wastewater treatment and disposal. Although the proposed Project would generate wastewater, the wastewater generated by the Project would not exceed the wastewater treatment capacity of the existing treatment facilities. All of the proposed uses would generate typical wastewater characteristics and special handling or pretreatment systems are not expected to be required. The City's wastewater treatment facilities are designed to treat domestic sewage; and the expected domestic sewage does not exceed existing wastewater treatment capabilities. Therefore, the proposed Project would not exceed wastewater treatment requirements, and the Project would have no related significant impacts.

Based on a standard wastewater generation rate used by the City of Lodi of 2,500 gallons per day per acre for commercial use, future buildout of the proposed Project could generate up to 75,000 gallons of wastewater per day. This is based on future development of 30 acres of privately owned land in the Project area. The applicant has submitted preliminary wastewater master plan. The future location and design of sewer lines, any required lift stations and other facilities to serve future development within the Project area is unknown and beyond the scope of this analysis, but could result in significant impacts. The timing of any future sewer service is also unknown. However, on-site sewer lines would need to be constructed and connected to the main City sewer systems. Wastewater discharges from this Project would flow into the main city sewer system and would ultimately be treated at the White Slough Water Pollution Control Facility (WSWPCF). Implementation of the proposed Project is not expected to exceed wastewater treatment requirements pursuant to WSWPCF capacity limitations. Therefore, the proposed Project will not interfere with the upgrade process nor exceed Regional Water Board standards. As such, impacts would be less than significant with mitigation.

MITIGATION MEASURE UTL:

1. Extend a sanitary sewer to the Project area that can provide adequate capacity to serve future development. Sewer improvement plans shall be designed to City of Lodi engineering standards. The applicant shall obtain any permits and clearances from appropriate biological resource agencies that may be required, including any CEQA determinations.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant. The City of Lodi Public Works Department provides wastewater treatment for the City of Lodi. Wastewater in the City of Lodi is treated at the White Slough Water Pollution Control Facility (WSWPCF). The facility has been expanded to a design capacity of 8.5 million gallons (mgd) per day. However,

the facility has permits to operate at 7.0 mgd per day. The WSWPCF currently treats approximately 6.2 mgd per day, which means the facility has a net surplus capacity of 0.8 mgd per day ("permitted" capacity).

The proposed Project is outside of the City limits and would be required to tie directly into the City utilities upon development. The utilities that serve surrounding vicinity are sized to accommodate build out of City General Plan. This includes water and wastewater systems. Since the City's Water and Sewer departments have adequate capacity to accommodate future growth contemplated by the General Plan, impacts would be less than significant.

c) *Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts?*

Less Than Significant with Mitigation. As previously in Section 9, a drainage system must be designed and constructed to handle storm water drainage associated with the land use plan. Development of the system will include above and below ground drainage and onsite retention basins to capture the Projected flows. A drainage master plan must be designed before system development. The environmental impacts associated with the development of the drainage system will be evaluated once the drainage system design work is completed. Only when the design is completed can the environmental impacts of the drainage system be accurately assessed.

The Proposed Project would contribute runoff water to the existing and planned stormwater drainage system. Runoff generated from the Proposed commercial development may contain pollutants. Potential water pollutants that could be generated from the Project site include runoff induced sediment, construction-generated pollutants, vehicle and equipment fluids, chemicals, trash, landscaping byproducts, and other typical urban stormwater pollutants.

As discussed, the proposed Project includes an engineered drainage system to manage stormwater flows on the Project site. The proposed drainage system is designed to collect the site's onsite stormwater in a retention basin prior to piping the stormwater to the WID canal. The proposed drainage system and retention basin allow the quantity and quality of stormwater to be managed prior to its discharge to WID. Since the proposed drainage system has not yet been designed to a construction-drawing detail, Mitigation measures are needed to ensure the final drainage plans are designed to adequately manage the quantity and quality of stormwater prior to discharge into WID canal drainage facilities. The proposed preliminary design of the drainage system, however, clearly demonstrates that acceptable stormwater outflows from the proposed Project would be attainable. Therefore, with the incorporation of Mitigation Measures, impacts would be reduced to less than significant.

MITIGATION MEASURE UTL:

2. To the satisfaction of the City of Lodi Public Works Department, a detailed engineering analysis for the development of a stormwater collection system that will serve the Project and potential future development between Reynolds Ranch and the Woodbridge

Irrigation District (WID) canal shall be prepared. Said analysis shall include sizing of the pipe network and sizing of the detention basins and pump station discharging to the WID canal.

3. To the satisfaction of the City of Lodi Public Works Department, all drainage facilities shall be constructed in conformance with the standards and specifications of the City of Lodi.

d) Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?

Less Than Significant. City of Lodi Water Utility supplies and distributes potable water, as well as recycled water to the City and to some areas outside the City's jurisdiction. According to the City's Urban Water Management Plan (UWMP), the City currently has a net surplus in water supply given the City's current water entitlements and current water demand. In addition, year 2030 Projections show the City with a net surplus in water supply. The UWMP analyzed future growth within the City based on land use assumptions depicted in the City's General Plan. The proposed Project consists of activation of a well and would contribute to the City's water supply.

The proposed Project is consistent with the City's water demand Projections. Development of this Project and the water demand associated with the completed facilities would be consistent with Projected demands. However, given that the proposed Project would increase the number of persons in the City by only 0.3% in comparison to current conditions, the increase in demand for water, wastewater treatment, and solid waste disposal attributable to this Project is expected to be minimal compared to the amount of services being offered to the service area. Nevertheless, the following mitigation measures are recommended to reduce the water supply impacts of the Project to less-than-significant levels and ensure that existing service providers for wastewater treatment and solid waste disposal will be less than significantly impacted:

MITIGATION MEASURE UTL:

4. Prior to building permit issuance, the applicant shall submit landscape and irrigation plans for the common open space areas for the review and approval of the Community Development Director. Said plans shall incorporate, at a minimum, the following water-conservation measures: Extensive use of native plant materials; Low water-demand plants; Minimum use of lawn or, when used, installation of warm season grasses; Grouped plants of similar water demand to reduce over-irrigation of low water demand plants; Extensive use of mulch in all landscaped areas to improve the soil's water-holding capacity; Drip irrigation, soil moisture sensors, and automatic irrigation systems.

e) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's Projected demand in addition to the provider's existing commitments?

Less Than Significant. As detailed in part b), the City of Lodi Public Works Department provides wastewater treatment for the City of Lodi. Wastewater in the City of Lodi is treated at the White Slough Water Pollution Control Facility (WSWPCF). The facility has been expanded to a design capacity of 8.5 million gallons (mgd) per day with permits to operate at 7 mgd.. The WSWPCF currently treats approximately 6.2 mgd per day, which means the facility has a net surplus capacity of 0.8 mgd per day ("permitted" capacity).

The proposed Project would result in the construction of new impermeable surfaces that would increase runoff from the site. The proposed Project would contribute additional flows to the existing City storm drainage system. The storm drainage system is designed to accommodate the planned commercial use of the Project. The utilities that serve surrounding vicinity are sized to accommodate build out of City General Plan. This includes water and wastewater systems. Since the City's Water and Sewer departments have adequate capacity to accommodate future growth contemplated by the General Plan, impacts would be less than significant. In addition, storm runoff water quality is regulated by the federal Clean Water Act through the National Pollutant Discharge Elimination System (NPDES) and the State general permit system. The City of Lodi Storm Water Management Program (January 3, 2003) and associated Municipal Code requirements, which are discussed in Section 9, provide for control of storm water quality impacts. Compliance with the mitigation measures included in Section 9 Hydrology would reduce potential water quality impacts to less than significant.

f) Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?

Less Than Significant Impact. Construction and implementation of the Project would comply with applicable City policies including recycling programs. As a result the proposed Project would minimize the amount of solid waste generated by Project construction activities (grading, foundation construction, utility connections, and building construction) with construction waste reduced, reused, and/or recycled consistent with City policy. The amount of construction waste generated would not be expected to significantly impact landfill capacities. In addition, operation of the proposed Project would comply with the City's solid waste management program and recycle daily waste consistent with City policy. As a result operation of the proposed Project would not result in the need for new solid waste facilities. Central Valley Waste Services provides solid waste collection in Lodi. Solid waste is disposed of at existing private landfill facilities. There is no shortage of landfill facilities space. The proposed Project would be subject to existing City recycling programs and would involve no substantial increase in solid waste generation. Therefore, impacts are considered less than significant and no mitigation measures would be required.

g) Comply with federal, State, and local statutes and regulations related to solid waste?

No Impact. In accordance with City's standard construction practices, all contractors must properly dispose of construction wastes in accordance with applicable statutes and regulations. Operation of the proposed Project would generate the same types of solid wastes as those generated by the other similar facilities in the City. The proposed Project would not require any revisions to the City's solid waste management program and would not result in any violations of or conflicts with state, federal, or local laws governing solid waste disposal and no mitigation measures would be required.

FINDINGS

The proposed Project would result in less than significant impacts to utilities and service systems with implementation of the above mitigation measures.

Sources:

California, State of, Water Resources Control Board. GeoTracker. 2008. Available online at http://www.geotracker.swrcb.ca.gov

City of Lodi. City of Lodi General Plan Final Environmental Impact Report SCH NO. 2009022075. Prepared by Dytte & Bhatia Associates, Inc., April 2010.

City of Lodi. 2003. Stormwater Management Program, January 2003. Prepared by Black & Veatch Corporation, 2003.

City of Lodi. 2006. 2005 Urban Water Management Plan: Final Report. Prepared by RMC, March 2006.

West Yost & Associates, 2005. Technical Memorandum No.1 Full Surface Water Implementation Study, City of Lodi.

West Yost Associates. 2003. Memo including summary of proposed improvements at the White Slough WPCF. January 2003.

West Yost Associates. 2006. Memo including summary of proposed Phase 3 improvements 2007 at the White Slough WPCF. September 2006.

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
18.	**MANDATORY FINDINGS OF SIGNIFICANCE**				
	a. Does the Project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	■	☐	☐
	b. Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a Project are considerable when viewed in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects)?	☐	☐	■	☐
	c. Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	■	☐

a) Does the Project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant With Mitigation Incorporated. As documented in this Initial Study, potential nesting habitat for two special-status wildlife species, Swainson's hawk and burrowing owl, as well as other migratory bird species, protected under the Migratory Bird Treaty Act, occurs on the Project site. In addition, as the majority of the Project site consists of agricultural land and ruderal fields, the site is considered foraging habitat for Swainson's hawk, burrowing owls, and other raptors. As a result, implementation of the proposed Project could result in direct impacts to special-status wildlife species, or disturb habitats that support these species. However, Mitigation Measures described in the Biological Resources section would reduce potential impacts to these species.

While there are no known cultural resources on the Project site, ground disturbing activities performed for the proposed Project could possibly disturb previously unidentified cultural resources. However, Mitigation Measures Cultural Resources section would reduce potential impacts on previously unknown cultural resources including human remains that could be discovered on the Project site. Therefore, the impact would be less than significant with mitigation incorporated.

b) *Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a Project are considerable when viewed in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects.)*

Less than Significant Impact. As discussed in this report and as provided through mitigation measures, the proposed Project will not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or pre-history.

Construction

All campus construction Projects in the City, including the proposed Project, must implement air quality measures to control fugitive dust as required by the SJVAPCD. In addition, the proposed Project will also be required to implement Project-specific controls to ensure that emissions from the Project during the application of architectural coatings and other building sealants do not exceed daily thresholds. Since no other construction Projects are currently scheduled in the vicinity of the proposed Project, during the same time period, Project-related impacts to biological resources, cultural resources, geology and soils, hydrology/water quality, noise, and transportation/traffic are also not considered to be cumulatively considerable. Given the broad distribution of other ongoing Projects and the continued implementation of mitigation measures to minimize impacts to air quality, biological resources, cultural resources, geology and soils, hydrology/water quality, and noise, no significant cumulative construction impacts would occur as a result of the proposed Project.

Operation

The proposed Project is a phased Project. Once construction of the Project is completed, as mitigated, the traffic expected to be generated by the Project will not cause impacts to nearby intersections. The environmental impacts of the Project will be below the level of significance after mitigation. The Project's air emissions during operation would be below the SJVAPCD thresholds, which were established to assess the significance of both Project level and cumulative impacts. The proposed Project would not result in significant impacts that cannot be mitigated to a level that is less than significant. The analysis in this IS/MND has determined that the proposed Project would not have any individually limited or cumulatively considerable impacts. Therefore, the proposed Project is not anticipated to result in a significant cumulative impact.

c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant Impact. The primary impacts associated with this Project are short-term impacts related to grading, and construction activities. Short term impacts are all localized to the Project site and its vicinity, and may include limited adverse effects upon air quality and ambient noise levels. The Project will not include any activities or uses causing substantial adverse effects on human beings either directly or indirectly or on the environment. The Project has been designed to meet the general development standards required by the City of Lodi and will incorporate conditions of approval to meet local codes and regulations. Compliance with City standards and implementation of recommended mitigation measures will reduce the impacts to levels less than significant.

FINDINGS

With incorporation of Mitigation measures recommended, the proposed Project would result less than significant impacts.

Blank page

SECTION 4

MITIGATION MEASURES

Listed below is a summary of the proposed mitigation measures and conditions of approval for the annexation Project that reduce potentially significant impacts. In some cases the conditions of approval are required by regulation, but are provided for individual Projects to increase awareness of the requirement and enhance compliance.

AESTHETICS

1. Pursuant to Chapter 17.81 of the Lodi Municipal Code, the applicant shall submit detailed site plan and architectural elevations for review and approval by the City of Lodi Planning Commission. The said plans shall illustrate the design details and make specific reference to those features that meet the provisions of Chapter 17.33 Planed Development District (PD) including, but not limited, to the following:

i. A building height of no more than sixty (60) feet or three (3) stories in height. Exceptions can be made for structures such as towers, spires, cupolas, chimneys, flagpoles, monuments, scenery lofts, and other similar structures and necessary mechanical appurtenances covering not more than 10 percent of the ground area covered by the structures and extending no more than 25 feet above the height limit prescribed by the regulations for the district in which the site is located.

ii. All mechanical equipment, including all roof mounted equipment such as satellite dishes or any other communications devices, shall be fully screened from ground-level view within 150 feet of the property, from public and private property, including developed or undeveloped properties. *Exceptional shall be made for solar equipments.*

iii. Ground mounted mechanical equipment shall be screened by walls and fencing or landscaping.

iv. Outdoor refuse containers shall be located in trash enclosures, shall be subject to design review, and shall comply with the following standards:

a. Trash enclosures storing containers with a cumulative capacity of one cubic yard to more shall be constructed with decorative masonry walls with solid metal doors. The exterior shall be compatible with the design of the main building.

b. A minimum 8 ft-by-10 ft -wide thickened concrete paving section shall be provided in from the enclosure gates.

2. The applicant shall submit a detailed landscaping plan to the Community Development Department for review and approval and make specific reference to those landscaping details that meet the provisions of the City of Lodi Public Works Department requirements including but not limited to the following:

i. A minimum of 10 ft of landscaping area shall be provided along Harney Lane and West Lane street frontages and a minimum of 8 ft of landscaping area shall be provided along the new roads.

ii. The Project shall provide 1 shade tree for each 4 parking spaces, which must be planted within the parking lot end stall islands, tree wells, and perimeters planters to maximize shade on the paved areas. This is in addition to the open space tree requirements.

iii. A landscape plan shall be submitted and implemented which demonstrates that 50 percent of the parking lot will be shaded within 10 years.

iv. All landscaped areas adjoining parking and drive area(s) are to bordered by a 6-inch continuous vertical concrete curbing.

3. The applicant shall submit site lighting plan to the Community Development Department as part of a SPARC application for review and approval. The said plan shall include, but not be limited to, the following design features:
   i. Full-cutoff lighting fixtures to direct lighting to the specific location intended for illumination (e.g., roads, walkways, or parking lot) and to minimize stray light spillover into adjacent residential areas, sensitive biological habitat, and other light sensitive receptors;
   ii. Appropriate intensity of lighting to provide safety and security while minimizing light pollution and energy consumption; and shielding of direct lighting within parking areas, sensitive biological habitat, and other light-sensitive receptors through site configuration, grading, lighting design, or barriers such as earthen berms, walls, or landscaping.
   iii. A photometric exterior lighting plan and fixture specification shall be submitted for review and approval of the Community development Director. Said plans and specification shall address the following:
      a. The plans shall demonstrate that lighting fixtures on the building and grounds shall be designed and installed so as to contain light on the subject property and not spill over onto adjacent private properties or public rights-of-way.
      b. The equivalent of one (1) foot-candle of illumination shall be maintained throughout the parking area.
      c. All parking light fixtures shall be a maximum of twenty-five 25 feet in height.
      d. All fixtures shall be consistent throughout the center.

AGRICULTURE RESOURCES

1. Prior to issuance of a grading permit for any area of the Project site that includes prime agricultural soils, the affected landowner(s) shall secure agricultural conservation easement in perpetuity at rate of one 1:1 (acreage converted/easement secured) in the northern San Joaquin County area, excluding areas designated as nature or areas already secured as agricultural easements. The said easement shall be designated by the State as Prime Farmland. In addition, the location, size and terms of the easement shall be approved by the City of Lodi City Manager or designee.
2. The applicant shall inform and notify prospective buyers in writing, prior to purchase, about existing and on-going agricultural activities in the immediate area in the form of a disclosure statement. The notifications shall disclose that the Project site is located in an agricultural area subject to ground and aerial applications of chemical and early morning or nighttime farm operations which may create noise, dust, etcetera. The language and format of such notification shall be reviewed and approved by the City Community Development Department prior to recordation of final map(s). Each disclosure statement shall be acknowledged with the signature of each prospective owner. Additionally, each prospective owner shall also be notified of the City of Lodi and the County of San Joaquin Right-to-Farm Ordinance.

AIR QUALITY.

1. Parcel Maps, Prezoning designation, future Conditional Use Permits, Site Plan Review, and Planned Development Review must be evaluated to ensure compliance with air quality standards, including construction, area source, and operational emissions.
2. The Project proponent shall prepared an Air Impact Assessment (AIA) study for review and approval by the San Joaquin Valley Air Pollution Control District. The said AIA

shall be completed and submitted prior to issuance of any building permit for the project include grade and site clearance permits.

3. The City shall not issue a building permit for grading, clearing or construction of the proposed Project until the applicant obtains grading and building permits from the San Joaquin Valley Air Control District.

4. Construction of the proposed Project shall comply with all applicable regulations specified in the San Joaquin Valley Air Pollution Control District Regulation VIII (Fugitive Dust Rules), including, but not limited to, compliance with the following mitigation measures:

   i. Visible Dust Emissions (VDE) from construction, demolition, excavation or other earthmoving activities related to the Project shall be limited to 20% opacity or less, as defined in Rule 8011, Appendix A.

   ii. Pre-water all land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and phase earthmoving.

   iii. Apply water, chemical/organic stabilizer/suppressant, or vegetative ground cover to all disturbed areas, including unpaved roads.

   iv. Restrict vehicular access to the disturbance area during periods of inactivity.

   v. Apply water or chemical/organic stabilizers/suppressants, construct wind barriers and/or cover exposed potentially dust-generating materials.

   vi. When materials are transported off-site, stabilize and cover all materials to be transported and maintain six inches of freeboard space from the top of the container.

   vii. Remove carryout and trackout of soil materials on a daily basis unless it extends more than 50 feet from site; carryout and trackout extending more than 50 feet from the site shall be removed immediately. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden. If the Project would involve more than 150 construction vehicle trips per day onto the public street, additional restrictions specified in Section 5.8 of Rule 8041 shall apply.

   viii. Traffic speeds on unpaved roads shall be limited to 15 mph.

5. During construction, all grading activities shall cease during periods of high winds (i.e., greater than 30 mph). To assure compliance with this measure, grading activities are subject to periodic inspections by City staff.

6. Construction equipment shall be kept in proper operating condition, including proper engine tuning and exhaust control systems.

7. Trucks and other construction vehicles shall not park, queue and/or idle at the Project site or in the adjoining public rights-of-way before 7:00 AM or after 10 PM, in accordance with the permitted hours of construction stated in the City of Lodi Municipal Code.

8. Disturbed areas designated for landscaping shall be prepared as soon as possible after completion of construction activities.

9. Areas of the construction site that will remain inactive for three months or longer following clearing, grubbing and/or grading shall receive appropriate BMP treatments (e.g., revegetation, mulching, covering with tarps, etc.) to prevent fugitive dust generation.

10. All exposed soil or material stockpiles that will not be used within 3 days shall be enclosed, covered, or watered twice daily, or shall be stabilized with approved nontoxic chemical soil binders at a rate to be determined by the on-site construction supervisor.

11. Unpaved access roads shall be stabilized via frequent watering, non-toxic chemical stabilization, temporary paving, or equivalent measures at a rate to be determined by the on-site construction supervisor.

12. Trucks transporting materials to and from the site shall allow for at least two feet of freeboard (i.e., minimum vertical distance between the top of the load and the top of the trailer). Alternatively, trucks transporting materials shall be covered.

13. Where visible soil material is tracked onto adjacent public paved roads, the paved roads shall be swept and debris shall be returned to the construction site or transported off site for disposal.

14. Wheel washers, dirt knock-off grates/mats, or equivalent measures shall be installed within the construction site where vehicles exit unpaved roads onto paved roads.

15. Diesel powered construction equipment shall be maintained in accordance with manufacturer's requirements, and shall be retrofitted with diesel particulate filters where available and practicable.

16. Heavy duty diesel trucks and gasoline powered equipment shall be turned off if idling is anticipated to last for more than 5 minutes.

17. Where feasible, the construction contractor shall use alternatively fueled construction equipment, such as electric or natural gas-powered equipment or biofuel.

18. Heavy construction equipment shall use low NOx diesel fuel to the extent that it is readily available at the time of construction.

19. The construction contractor shall develop a construction traffic management plan and submit it to the City for review and approval. The said plan shall include the following:

    iii. Scheduling heavy-duty truck deliveries to avoid peak traffic periods

    iv. Consolidating truck deliveries

20. The construction contractor shall maintain signage along the construction perimeter with the name and telephone number of the individual in charge of implementing the construction emissions mitigation plan, and with the telephone number of the SJVAPCD's complaint line. The contractor's representative shall maintain a log of any public complaints and corrective actions taken to resolve complaints.

21. During grading and site preparation activities, exposed soil areas shall be stabilized via frequent watering, non-toxic chemical stabilization, or equivalent measures at a rate to be determined by the on-site construction supervisor.

22. During windy days when fugitive dust can be observed leaving the construction site, additional applications of water shall be required at a rate to be determined by the onsite construction supervisor.

23. Prior to issuance of a building permit, the Project proponent shall prepare and submit health risk screening analysis using Project-specific information pursuant to the requirements of the San Joaquin Valley Air Control District.

24. A11 exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

25. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

26. A11 visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

27. All vehicle speeds on unpaved roads shall be limited to 15 mph.

28. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

29. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCRI]). Clear signage shall be provided for construction workers at all access points.

30. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

31. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

GREENHOUSE GAS EMISSIONS.

1. The proposed Projects shall be required, prior to final City approval, to implement a GHG reduction program that uses Transportation Systems Management, building design for energy conservation, water conservation techniques, solid waste reduction techniques or other green technologies to demonstrate compliance with the City's goal reduction in GHG emissions compared to normal operations.

BIOLOGICAL RESOURCES

1. **Swainson's Hawk Foraging Habitat.** The Project applicant shall ensure that mitigation for loss of Swainson's hawk foraging habitat within San Joaquin County occurs through one of the following measures. Should measures b, c, or d be implemented, the Project applicant shall ensure that an appropriate number of acres (as approved by the California Department of Fish and Game [CDFG]) of agricultural land, annual grasslands, or other suitable raptor foraging habitat are preserved off site at a habitat preservation bank within San Joaquin County at a 1 to 1 (habitat lost to preserved) ratio.

   i. The Project Site is located within the boundaries of the San Joaquin County Multi-species Habitat Conservation and Open Space Plan (SJMSCP). Half of the site is an abandoned golf driving range located in a "no-pay" zone and half is within the "agricultural habitat pay zone." As such, the Project applicant could seek coverage under the SJMSCP. Additionally, the Project applicant would be required to conduct "Incidental Take Minimization Measures," that for this site would likely include preconstruction surveys for nesting birds.

   or

   ii. Purchase of mitigation credits at an approved CDFG mitigation bank that is within San Joaquin County.

   iii. Payment of a mitigation fee to a habitat development and management company, through a negotiated agreement between said company, the Project applicant, and CDFG. The lands must be within 10 miles of the nearest Swainson's hawk nest (consistent with CDFG guidelines).

iv. Purchase of conservation easements or fee title in San Joaquin County. This mitigation must occur within 10 miles of the nearest Swainson's hawk nest, unless otherwise approved by CDFG (consistent with CDFG Guidelines).

2. **Nesting Birds**. Between March 1 and September 15, the Project applicant shall have a qualified biologist conduct nest surveys no more than 30 days prior to any demolition/construction or ground disturbing activities that are within 500 feet of potential nest trees or suitable nesting habitat (i.e., trees, grassland). A pre-construction survey shall be submitted to CDFG that includes, at a minimum: (1) a description of the methodology including dates of field visits, the names of survey personnel with resumes, and a list of references cited and persons contacted; and (2) a map showing the location(s) of any bird nests observed on the Project site. If no active nests of Migratory Bird Treaty Act (MBTA) covered species are identified, then no further mitigation is required. If active nests of protected bird species are identified in the focused nest surveys, the Project applicant shall take the following steps.

   i. The Project applicant, in consultation with San Joaquin County and CDFG, shall delay construction in the vicinity of active nest sites during the breeding season (March 1 through September 15) while the nest is occupied with adults and/or young. A qualified biologist shall monitor any occupied nest to determine when the nest is no longer used. If the construction cannot be delayed, avoidance measures shall include the establishment of a non-disturbance buffer zone around the nest site. The size of the buffer zone shall be determined in consultation with the CDFG, but will be a minimum of 100 feet. The buffer zone shall be delineated with highly visible temporary construction fencing.

   ii. No intensive disturbance (e.g., heavy equipment operation associated with construction, or use of cranes) or other Project-related activities that could cause nest abandonment or forced fledging, shall be initiated within the established buffer zone of an active nest between March 1 and September 15.

   iii. If construction activities are unavoidable within the buffer zone, the Project applicant shall retain a qualified biologist to monitor the nest site to determine if construction activities are disturbing the adult or young birds. If abandonment occurs, the biologist shall consult with CDFG or U.S. Fish and Wildlife Service (who monitor compliance with the MBTA) for the appropriate salvage measures. The Project applicant will be required to fund the full costs of the salvage measures.

3. **Burrowing Owl.** The Project proponent shall hire a qualified biologist to conduct a pre-construction burrowing owl survey. If nesting owls are found, no disturbance shall be allowed within 160-feet of the active nest burrow between February 1 and August 31. Outside the nesting season, and/or upon confirmation by the qualified biologist, and in consultation with California Department of Fish and Game, that all young have fledged and left an active nest, burrowing owls present in the burrow shall be excluded from the burrow(s) by a qualified biologist through a passive relocation as outlined in the California Burrowing Owl Consortium's April 1993 Burrowing Owl Survey Protocol and Mitigation Guidelines. Once the burrows have been cleared, they must be hand-excavated and collapsed prior to Project construction.

4. **Pre-Construction Survey.** The Project proponent shall contact the San Joaquin County Council of Governments, Habitat Division, to schedule a pre-construction biological resources inventory survey. The said re-construction biological resources inventory

survey shall occur 30-days prior to issuance of a building permit. They City shall not issue a building permit for grading, clearing, staging or any form of permit that would allow site disturbance. The City shall only issue a building permit after it receives a signed ITMM from the San Joaquin County Council of Governments, Habitat Division authoring site disturbance.

CULTURAL RESOURCES

1. If evidence of an archaeological site or other suspected historical resource as defined in CEQA Guidelines section 15064.5, including midden, that could conceal material remains (e.g., worked stone, fired clay vessels, faunal bone, hearths, storage pits, or burials) are discovered during Project-related earth-moving activities, all ground-disturbing activity within 100 feet of the resources shall be halted and the City of Lodi shall notified within 24 hours of the discovery. The Project applicant shall hire a qualified archaeologist to assess the significance of the find. Any identified cultural resources shall be recorded on the appropriate DPR 523 (A-L) forms and filed with the Central California Information Center. If the resource is a historical resource or unique archaeological resource which cannot be avoided, a qualified archaeologist shall prepare a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the resource.

2. Should paleontological resources be identified on the Project site during any ground disturbing activities related to the Project, all ground disturbing activities within 100 feet of the discovery shall cease and the City of Lodi shall be notified within 24 hours of the discovery. The Project applicant shall retain a qualified paleontologist to provide an evaluation of the find and to prescribe mitigation measures to reduce impacts to a less-than-significant level. In considering any suggested mitigation proposed by the consulting paleontologist, the Project applicant shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, Project design, costs, specific plan policies and land use assumptions, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the Project site while mitigation for paleontological resources is carried out.

3. If human remains (including disarticulated or cremated remains) are discovered at any Project construction sites during any phase of construction, all ground-disturbing activity within 100 feet of the resources shall be halted and the City of Lodi and the San Joaquin County coroner shall be notified immediately. If the remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The Project applicant shall retain a professional archaeologist with Native American burial experience to conduct a field investigation of the specific site and consult with the Most Likely Descendant, if any, identified by the NAHC. As necessary, the archaeologist may provide professional assistance to the Most Likely Descendant, including the excavation and removal of the human remains. The Project applicant will be responsible for approval of recommended mitigation as it deems appropriate, taking account of the provisions of state law, as set forth in CEQA Guidelines section 15064.5(e) and Public Resources Code section 5097.98. The Project applicant shall implement approved mitigation before the

resumption of ground-disturbing activities within 100 feet of where the remains were discovered.

GEOLOGY AND SOILS

1. Each Project's conditions of approval shall require the Project be designed according to the most recent California Building Code and UBC Seismic Zone 3 requirements, applicable local codes, and be in accordance with the generally accepted standard for geotechnical practice for seismic design in Northern California.

2. Prior to the approval of grading plans, the Project applicant shall perform design-level geotechnical investigations and incorporate all recommendations into the Project construction documents and grading plans.

3. Prior to issuance of a grading or development permits, the Project proponent(s) shall obtain a National Pollutant Discharge Elimination System (NPDES) permit from the California Water Resources Control Board and a copy of the permit shall be provided to the City prior to or along with the first building permit submitted for the Project.

4. Prior to issuance of grading or development permits, applicant(s) shall retain a qualified geologic/geotechnical consultant to prepare detailed, design-level geotechnical investigations including an appropriate number of borings, test pits, trenches and laboratory testing to address final Project design issues. Such geotechnical reports shall be appropriately detailed to address final Project construction requirements and should conform to applicable San Joaquin County and City of Lodi standards. Where appropriate, specific measures shall be depicted on plans prepared by the geotechnical engineer of record or on plan sheets included with final grading plans to reduce any soil hazards to an acceptable level, including the potential for landslides, shrink-swell potential, liquefaction, differential settlement and other similar hazards.

HYDROLOGY AND WATER QUALITY

1. Prior to issuance of a grading or development permits, to the satisfaction of the City of Lodi Public Works Department, the Project proponent shall provide a private retention basin either onsite on adjacent properties to serve the proposed annexation Project. The said retention basin shall be designed with the following criteria:
   i. A 48-hour, 100-year storm, total rainfall of 4.3 inches capacity shall be provided;
   ii. Fencing shall be provided around the basin greater than 3 feet in depth;
   iii. Adequate all weather access shall be provided;
   iv. Any additional requirements placed as a condition of approval shall be incorporated into the design.
2. To the satisfaction of the City of Lodi Public Works Department, as part of the design process, a detailed drainage master plan shall be developed to identify collection and storage facilities, phasing and other appurtenances needed to insure that the system meets the requirements of the City drainage system.
3. To the satisfaction of the City of Lodi Public Works Department, the proposed retention basin shall include no outflow facility to help manage nuisance flows. Other water quality control features shall be incorporated into the Project design to improve water quality to the satisfaction of the City of Lodi Public Works Department.

4. The Project proponent shall prepare a Storm Water Pollution Prevention Plan (SWPPP) designed to reduce potential impacts to surface water quality through the construction period of the Project. The SWPPP must be maintained on-site and made available to City inspectors and/or RWQCB staff upon request. The SWPPP shall include specific and detailed BMPs designed to mitigate construction-related pollutants. At minimum, BMPs shall include practices to minimize the contact of construction materials, equipment, and maintenance supplies (e.g., fuels, lubricants, paints, solvents, adhesives) with storm water. The SWPPP shall specify properly designed centralized storage areas that keep these materials out of the rain.

LAND USE AND PLANNING

1. The applicant shall inform and notify prospective buyers in writing, prior to purchase, about existing and on-going agricultural activities in the immediate area in the form of a disclosure statement. The notifications shall disclose that the Project site is located in an agricultural area subject to ground and aerial applications of chemical and early morning or nighttime farm operations which may create noise, dust, etcetera. The language and format of such notification shall be reviewed and approved by the City Community Development Department prior to recordation of final map(s). Each disclosure statement shall be acknowledged with the signature of each prospective owner. Additionally, each prospective owner shall also be notified of the City of Lodi and the County of San Joaquin Right-to- Farm Ordinance.
2. The City shall not issue a building permit, including site grading, clearing and construction, until preconstruction site survey occurs and the Project proponent(s) signs Incidental Take Minimization Measures (ITMM) has been approved by the San Joaquin County Council of Governments (SJCOG, Inc) in accordance with rules and regulations of the San Joaquin county Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). The said preconstruction survey shall occur no greater than 30 days prior to or at the time of issuance of Building Permit. It shall be the responsibility of the Project proponent(s) to coordinate the said preconstruction site survey.

NOISE

1. Construction activities would need authorization under City issuance of construction permits before any work could commence on-site. Construction activities shall be limited to the hours of 7:00 a.m. to 10:00 p.m. Monday through Sunday, consistent with the City's Ordinance.
2. All noise-producing Project equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specification. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) must be equipped with shrouds and noise control features that are readily available for that type of equipment.
3. All mobile and fixed noise-producing equipment used on the Project that is regulated for noise output by a local, state, or federal agency shall comply with such regulation while in the course of Project activity.
4. Electrically powered equipment shall be used instead of pneumatic or internal combustion–powered equipment, where feasible.
5. Mobile noise-generating equipment and machinery shall be shut off when not in use.

6. Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors.
7. Construction site and access road speed limits shall be established and enforced during the construction period.
8. The use of noise-producing signals, including horns, whistles, alarms, and bells, will be for safety warning purposes only.
9. A site-specific noise study shall be performed for future individual land use proposals within the Project area by a qualified acoustic specialist. If measured noise levels exceed applicable City of Lodi standards, then noise reduction measures shall be incorporated into the individual Project design to ensure consistency with the general plan noise standards. Noise reduction measures could include, but would not be limited to, noise barriers and site orientation for outdoor spaces and sound rated building constructions for indoor spaces. In addition the acoustic report shall demonstrate how noise from the Project will conform to the noise level requirements for stationary noise sources as outlined in City's General Plan and other applicable noise standards.

PUBLIC SERVICES

1. The Project shall pay all applicable impact fees according to the rules and regulations in effect at the time of development.

TRANSPORTATION/TRAFFIC

1. The Project shall be subject to Development Impact fees as outlined in City's Municipal Code Section 15.64.030.
2. The Project proponent shall pay for a transit study to determine required modifications to the existing transit service.
3. As part of the subdivision review process, a roadway improvement plan shall include, but not be limited to providing, the following items: 1) identify all entry/access points for all future development within the Project area to ensure proper intersection control and signage, 2) show adequate sight distance in consideration of grading an landscaping at all intersections and drive entries, and 3) identify all bikeways, and sidewalks within the Project area. Submittal of the above information is intended to address any potential for vehicle and pedestrian conflicts in the development of the Project roadway plan and ensure safe and adequate access for all residents and businesses within the Project site.

UTILITIES AND SERVICE SYSTEMS

1. Extend a sanitary sewer to the Project area that can provide adequate capacity to serve future development. Sewer improvement plans shall be designed to City of Lodi engineering standards. The applicant shall obtain any permits and clearances from appropriate biological resource agencies that may be required, including any CEQA determinations.
2. To the satisfaction of the City of Lodi Public Works Department, a detailed engineering analysis for the development of a stormwater collection system that will serve the Project and potential future development between Reynolds Ranch and the Woodbridge Irrigation District (WID) canal shall be prepared. Said analysis shall include sizing of the pipe network and sizing of the detention basins and pump station discharging to the WID canal.

3. To the satisfaction of the City of Lodi Public Works Department, all drainage facilities shall be constructed in conformance with the standards and specifications of the City of Lodi.
4. Prior to building permit issuance, the applicant shall submit landscape and irrigation plans for the common open space areas for the review and approval of the Community Development Director. Said plans shall incorporate, at a minimum, the following water-conservation measures: Extensive use of native plant materials; Low water-demand plants; Minimum use of lawn or, when used, installation of warm season grasses; Grouped plants of similar water demand to reduce over-irrigation of low water demand plants; Extensive use of mulch in all landscaped areas to improve the soil's water-holding capacity; Drip irrigation, soil moisture sensors, and automatic irrigation systems.

SECTION 5

REFERENCES

California Air Resources Board (CARB), *Air Quality and Land Use Handbook: A Community Health Perspective*, 2005.

California Air Resources Board (CARB), *Ambient Air Quality Standards,* last updated February, 2007.

California Air Resources Board, *California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit*, 2007.

California Department of Conservation, Division of Land Resource Protection. Farmland Mapping and Monitoring Program (2004-2006).

California, State of, Department of Conservation (CDC), Division of Mines, *California Geological Survey - SMARA Mineral Land Classification Map 2006*.

California, State of, Department of Conservation. 2007. Department of Geological Survey. Alquist-Priolo Earthquake Fault Zone Mapping. Website http://www.consrv.ca.gov/cgs/

California Department of Conservation, Division of Land Resource Protection. *San Joaquin County Important Farmland 2006*. June 2008.

California, State of, Department of Finance, Employment Division, 2000 Labor Foaroce Date for Sub-County Area (Resvised).

California, State of, Department of Finance, E-5 City/County Population and Housing Estimates, January 1, 2008, May 2008.

California, State of, Department of Geological Survey (CGS), Probabilistic Seismic Hazards Mapping Ground Motion Page, http://redirect.conservation.ca.gov/cgs/rghm/psha/pshamap.asp, accessed August, 2010.

Department of Conservation. 2007. Department of Geological Survey. Alquist-Priolo Earthquake Fault Zone Mapping. Website http://www.consrv.ca.gov/cgs/

California, State of, Department of Transportation. *San Joaquin County Officially Designated State Scenic Highways and Historic Parkways 2009.* Available online at http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm

California, State of, Department of Transportation. *Scenic Highway Guidelines*. Also available online at http://www.dot.ca.gov/hq/LandArch/scenic/guidelines/scenic_hwy_guidelines.pd

California, State of, Water Resources Control Board. GeoTracker. 2008. Available online at http://www.geotracker.swrcb.ca.gov

California Wilderness Coalition. *California's Missing Linkages Restoring Connectivity to the California Landscape.* Available online at: http://www.calwild.org/resources/index.html

City of Lodi. City of Lodi General Plan Final Environmental Impact Report SCH NO. 2009022075. Prepared by Dytte & Bhatia Associates, Inc., April 2010.

City of Lodi. 2003. Stormwater Management Program, January 2003. Prepared by Black & Veatch Corporation, 2003.

City of Lodi. 2006. 2005 Urban Water Management Plan: Final Report. Prepared by RMC, March 2006.

Federal Emergency Management Agency, Flood Insurance Rate Map, Map No. 06077C0306F, October 19, 2009.

Neil O. Anderson & Associates, Inc., *Phase I Environmental Site Assessment, Harney Lane 30-Acre Site*, August 28, 2007.

San Joaquin County, County of San Joaquin General Plan 1992.

San Joaquin County, Draft Airport Land Use Compatibility Plan, 2008.

San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP).

San Joaquin County. San Joaquin County Important Farmland 2006

San Joaquin Valley Air Pollution Control District (SJVAPCD), *Ambient Air Quality Standards and Valley Attainment Status,* 2005.

San Joaquin Valley Air Pollution Control District (SJVAPCD), *Guide for Assessing and Mitigating Air Quality Impacts, Technical Document: Information for Preparing Air Quality Sections in EIRs,* Adopted August 20, 1998; January 10, 2002 revision.

San Joaquin Valley Air Pollution Control District (SJVAPCD), *District Air Quality Plans and Related Reports, Particulate Matter, and Ozone*, 2003.

State of California. California Integrated Waste Management Board. Solid Waste Information System Website http://www.ciwmb.ca.gov/SWIS/

U.S. Census Bureau. 2000. United States Census 2000. Website http://www.census.gov/

United States Environmental Protection Agency. Region 9: Cleanup in the Pacific Southwest, Cleanup Sites in California. Available online (http://www.epa.gov/region09/cleanup/california.html)

US Environmental Protection Agency, Inventory of US Greenhouse Gas Emissions and Sinks 1990-2006, 2008.

United States, Department of the Interior, Fish & Wildlife Service. National Wetlands Inventory. Wetlands Mapper, January 5, 2009. Available online at http://www.fws.gov/wetlands/data/Mapper.html.

U.S. Department of Transportation, Federal Highway Administration. *The National Scenic Byways Program*. (http://www.scenic.org/byways).

West Yost & Associates, 2005. Technical Memorandum No.1 Full Surface Water Implementation Study, City of Lodi.

West Yost Associates. 2003. Memo including summary of proposed improvements at the White Slough WPCF. January 2003.

West Yost Associates. 2006. Memo including summary of proposed Phase 3 improvements 2007 at the White Slough WPCF. September 2006.

Western Regional Climate Center, 2005. Website: http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?calodi+nca

SECTION 6
APPENDIX

Appendix A: Notice of Availability

NOTICE OF AVAILABILITY

Notice is herby given that the City of Lodi, Community Development Department, has completed an initial study and proposed a Mitigated Negative Declaration pursuant to the California Environmental Quality Act for the project described below.

The initial study prepared by the City was undertaken for the purpose of determining whether the project may have a significant effect on the environment. On the basis of the initial study, Community Development Department staff has concluded that the project will not have a significant effect on the environment, and therefore has prepared a proposed Mitigated Negative Declaration 08-01. The initial study reflects the independent judgment of the City.

FILE NUMBER: 10-MND-06

PROJECT TITLE: South Hutchins Annexation Project

PROJECT DESCRIPTION: The project site is located within the southwest portion of the City of Lodi Planning Area, immediately south of the City's southern boundary (along Harney Lane) and west of State Route (SR) 99. The project site is located in northern San Joaquin County, in the northern portion of California's Central Valley. Geographically, the project site lies between the Sierra Nevada Mountains to the east and San Francisco Bay to the west. From a regional perspective, the project site is located approximately 34 miles south of Sacramento, 6.5 miles north of Stockton, and 90 miles east of San Francisco.

The Project site is located adjacent to the southern boundary of the City of Lodi in San Joaquin County. The project site consists of one (1) parcel covering a total of approximately 30 acres (Assessors Parcel Number 058-100-03). The 30-acre Project site is bound by Harney Lane to the north, West Lane to the east, and agricultural fields to the south and west. The Project's southern boundary lies approximately 1,025 feet to the south of Harney Lane while the Project's western boundary lies about 1,230 feet to the west of the West Lane. While the project site is located outside the City of Lodi's jurisdictional boundary, it is within the City's Sphere of Influence. The project site has been given a land use designation in the City's General Plan, and the goals and policies of the General Plan are applicable. The current General Plan designation for the project site is Commercial.

The project proposes a mix of retail and office uses including the entire infrastructure needed to support future development of the site. The proposed project would include the following land uses: a retail center, a restaurant and medical office uses. Implementation of the proposed Project would result in the development of up to 103,350 square feet of commercial/retail use, including a 5,000 square foot bank, 6,400 square feet of restaurant space, and 179,200 square feet of office space, including a 68,000 square foot medical office building with a laboratory (3,000 square feet). In total, implementation of the proposed project would result in the development of up to

103,350 square feet of commercial/retail use, 6,400 square feet of restaurant use, and 179,200 square feet of office space, including 3,000 square feet of laboratory space.

The proposed Project would also provide a total of 1,501 parking spaces, 147 more parking spaces than is required by the parking regulations set forth in the Lodi Municipal Code. Of these spaces, 517 stalls would be provided for the retail component, 80 stalls would be provided for the restaurant component, and 904 stalls would be provided for the office component.

Principal vehicular access to the site is provided along Harney Lane while regional access is provided via SR 99. An existing private drive extending south from Harney Road serves as vehicle access to an abandoned golf driving range. Other unpaved access roads occur throughout the site principally to serve existing agricultural operations on the eastern portion of the property.

PUBLIC REVIEW PERIOD: The City will receive comment on the Initial Study and proposed Mitigated Negative Declaration for a 30-day period, commencing on **Monday, November 29, 2010** through **Thursday, December 30, 2010.** Copies of the Initial Study and the proposed Mitigated Negative Declaration are on file and available for review at the following locations:

- **Community Development Department**, 221 West Pine Street, Lodi, CA 95240
- **Lodi Public Library**, 201 West Locust Street, Lodi, CA 95240
- **Public Works Department,** 221 West Pine Street, Lodi, CA 95240

The Mitigated Negative Declaration is also available for review on the internet at the following web address: www.lodi.gov/com_dev/EIRS.html.

Any person wishing to comment on the Initial Study and proposed Negative Declaration must submit such comments in writing **no later than 5:00 PM on Thursday, December 30, 2010** to the City of Lodi at the following address:

Community Development Director
City of Lodi
P. O. Box 3006
Lodi, CA 95241

The City will provide additional public notices when the public hearings have been scheduled to consider approval of the Negative Declaration.

Signature	11-19-10 Date
Konradt Bartlam Printed Name	For

Appendix B: Cultural Resources Assessment

Memorandum

To: Manny Bereket, City of Lodi

From: Denise Jurich

Date: September 29, 2008

Subject: Lodi South Hutchins Phase I Archaeological Study

This report summarizes the cultural resources survey, methods undertaken, and the results of the survey performed for Lodi South Hutchins project. A Phase I archaeological survey was undertaken to identify historical or unique archaeological resources within the proposed project boundary in accordance with the regulatory guidelines of the California Environmental Quality Act (CEQA) and the National Historic Preservation Act (NHPA).

Survey and Records Search

A PBS&J archaeologist conducted a Phase I archaeological survey on September 29, 2008 to identify historical resources or unique archaeological resources within the project site.

The following PBS&J personnel conducted the fieldwork:

- Jesse Martinez, B.A. Anthropology, 11 years of experience in California and Great Basin archaeology.

The project site was systematically surveyed using transects spaced 15 meters apart. The eastern half of the project site consists primarily of agricultural fields. The surface of the northeast corner of this section is covered with imported gravels. An operating fruit stand is located in the graveled area. The western half of the project site consists of a former golf driving range which has seen extensive surface alteration. The northern half of this section includes a paved parking area, a trailer, and metal canopy. No archaeological resources or historical resources were encountered during the survey.

PBS&J requested a confidential records search of the project site from the Central California Information Center (CCIC) of the California Historical Resources Information System in September 2008. The records search included a review of the National Register of Historic Places, the California Historic Resources Inventory, California Historical Landmarks, California Points of Historical Interest, the Historic Property Data File, the Archaeological Determinations of Eligibility, the California Department of Transportation State and Local Bridge Survey, a 1907 Government Land Office plat, and the *Survey of Surveys* (1989). The CCIC has record of one previous archaeological study within the project site conducted in 2000 and which included the western side of West Lane. The records search did not identify any recorded Native American or historic-era cultural resources on the project site.

PBS&J requested a search of the Native American Heritage Commission (NAHC) sacred lands database in October 2008 to determine if any Native American cultural resources are present on or within the vicinity of the project site. The NAHC response letter stated that the sacred lands database failed to indicate the presence of Native American resources on or within the immediate vicinity of the project site. The NAHC letter included a list of Native American organizations and individuals who may have knowledge of cultural resources on or within the vicinity of the project site. As requested by the NAHC, letters that included a brief description of the proposed project and a project map were sent to each organization/individual identified on the NAHC list. The NAHC also requests that follow-up phone calls be made to the Native Americans if no response is given. As of the preparation of this initial study, no Native American individuals or organizations have provided information regarding cultural resources or Native American properties on or within the vicinity of the project site.

Regulatory Setting

Under CEQA, public agencies must consider the effects of their actions on both "historical resources" and "unique archaeological resources." Pursuant to Public Resources Code section 21084.1, a "project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment."

"Historical resource" is a term with a defined statutory meaning. (See Public Resources Code, section 21084.1 and CEQA Guidelines, section 15064.5, subdivisions (a) and (b)) The term embraces any resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR). The CRHR includes resources listed in or formally determined eligible for listing in the National Register of Historic Places, as well as some California State Landmarks and Points of Historical Interest.

Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be "historical resources" for purposes of CEQA unless a preponderance of evidence indicates otherwise (Public Resources Code, section 5024.1 and California Code of Regulations, Title 14, section 4850). Unless a resource listed in a survey has been demolished, lost substantial integrity, or there is a preponderance of evidence indicating that it is otherwise not eligible for listing, a lead agency should consider the resource to be potentially eligible for the CRHR. Section 21083.2 requires agencies to determine whether proposed projects would have effects on "unique archaeological resources."

Survey Results

No historical or archaeological resources as defined in CEQA Guidelines section 15064.5 were identified in the records search performed by the CCIC, and none were encountered during the archaeological survey conducted for the proposed project. No archaeological resources were identified in the records search performed by the CCIC nor were any cultural resources encountered during the archaeological survey performed for the proposed project. The absence of cultural

resources indentified in the records search or during the pedestrian survey does not, however, preclude the possibility of subsurface archaeological resources being present on the project site. Any ground disturbing activities performed for the proposed project could possibly disturb previously unidentified archaeological resources.

No paleontological resources or unique geologic features have been noted on the surface of the project site. The likelihood of paleontological resources or unique geologic features being present subsurface within the boundaries of the proposed project is unlikely given the rapid rate of deposition in the area. The possibility exists, however, that previously unidentified paleontological resources could be encountered during ground-disturbing activities associated with the proposed project and therefore is considered a potentially significant impact if mitigation measures are not implemented.

No human remains were encountered during the archaeological survey and the records search conducted by the CCIC did not identify any previously discovered human remains within the boundaries of the proposed project. The CCIC records search did note that human remains have been found just outside the quarter-mile radius of the project boundary search that was requested. Disturbing human remains, either in a formal cemetery or disarticulated, would be considered a significant impact under CEQA Guidelines §10564.5.

Recommendations

No additional surveys of the project site for cultural resources are considered necessary at this time. However, the following measures are recommended during construction of the project.

If evidence of an archaeological site or other suspected historical resource as defined in CEQA Guidelines section 15064.5, including midden, that could conceal material remains (e.g., worked stone, fired clay vessels, faunal bone, hearths, storage pits, or burials) are discovered during project-related earth-moving activities, all ground-disturbing activity within 100 feet of the resources shall be halted and the City of Lodi shall notified within 24 hours of the discovery. The project applicant shall hire a qualified archaeologist to assess the significance of the find. Any identified cultural resources shall be recorded on the appropriate DPR 523 (A-L) forms and filed with the Central California Information Center. If the resource is a historical resource or unique archaeological resource which cannot be avoided, a qualified archaeologist shall prepare a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the resource.

Should paleontological resources be identified on the project site during any ground disturbing activities related to the project, all ground disturbing activities within 100 feet of the discovery shall cease and the City of Lodi shall be notified within 24 hours of the discovery. The project applicant shall retain a qualified paleontologist to provide an evaluation of the find and to prescribe mitigation measures to reduce impacts to a less-than-significant level. In considering any suggested mitigation proposed by the consulting paleontologist, the project applicant shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs,

specific plan policies and land use assumptions, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation for paleontological resources is carried out.

If human remains (including disarticulated or cremated remains) are discovered at any project construction sites during any phase of construction, all ground-disturbing activity within 100 feet of the resources shall be halted and the City of Lodi and the San Joaquin County coroner shall be notified immediately. If the remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The project applicant shall retain a professional archaeologist with Native American burial experience to conduct a field investigation of the specific site and consult with the Most Likely Descendant, if any, identified by the NAHC. As necessary, the archaeologist may provide professional assistance to the Most Likely Descendant, including the excavation and removal of the human remains. The project applicant will be responsible for approval of recommended mitigation as it deems appropriate, taking account of the provisions of state law, as set forth in CEQA Guidelines section 15064.5(e) and Public Resources Code section 5097.98. The project applicant shall implement approved mitigation before the resumption of ground-disturbing activities within 100 feet of where the remains were discovered.

Appendix C: Biological Resources Assessment

Memorandum

To: Manny Bereket, City of Lodi

From: Carlos Alvarado

Date: September 29, 2008

Subject: Lodi South Hutchins Biological Assessment

This report summarizes the biological resources survey, methods undertaken, and the results of the survey performed for the Lodi South Hutchins Annexation project. Existing site characteristics, such as habitat types and animal and plant species present, are described based on site-specific information developed for the proposed project, and published technical information, as indicated in footnoted references. The primary sources of information referenced in this section regarding biological resources are:

- California Department of Fish and Game's February 2008 Special Animals list;
- California Department of Fish and Game's July 2008 Special Plants List
- California Department of Fish and Game's Natural Diversity Database (CNDDB), Rarefind 3 database program, California Department of Fish and Game, Updated August 2008;
- U.S. Fish and Wildlife Service's Online List of Federal Endangered and Threatened Species (www.fws.gov/sacramento/es/spp_lists/auto_list_form.cfm), accessed September 26, 2008;
- California Native Plant Society's Online Inventory website (http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi), accessed September 26, 2008; and
- September 29, 2008 reconnaissance-level visit to the project site.

Survey Staff and Method

A PBS&J biologist conducted a reconnaissance-level survey on September 29, 2008 to identify biological resources within the project site.

The following PBS&J personnel conducted the fieldwork:

- Carlos Alvarado, B.S. Wildlife, Fish, and Conservation Biology, 5 years of experience.

The project site was systematically surveyed using transects spaced 15 meters apart.

Survey Results

The approximately 30 acre site consists of an abandoned golf range and agricultural land. Agricultural land is currently the most common vegetation type in the region, including row crops, orchards, and vineyards. Additional communities in the area include ruderal and urban habitats. A description of these community types found within or adjacent to the project site is provided in the following paragraphs.

Agricultural Land

Half of the project site is comprised of agricultural land. Currently, strawberries (*Fragaria ananassa*), corn (*Zea mayz*), squash (*Cucurbita* spp.), pea (*Fabaceae* spp.), several species of ornamental flowers and Vietnamese chili peppers are in production. The southern one third of the agricultural area appears to have been recently disked. Due to the heavily disturbed nature of this habitat type, only those wildlife species that have adapted to intensive disturbance regimes associated with farming are likely to occur in agricultural land. Wildlife species observed during the September 29, 2008 field survey conducted by PBS&J, included American crow (*Corvus brachyrhyncos*), Brewer's blackbird (*Euphagus cyanocephalus*), European starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*), mourning dove (*Zenaida macroura*), black phoebe (*Sayornis nigricans*), northern mockingbird (*Mimus polyglottos*), western scrub jay (*Aphelocoma coerulescens*), raccoon (*Procyon lotor*), black-tailed jack rabbit (*Lepus californicus*) and California ground squirrel (*Spermophilus beecheyi*). Other wildlife species expected to occur in the vicinity of the project site include house mouse (*Mus musculus*), black rat (*Rattus rattus*), Norway rat (*Rattus norvegicus*), striped skunk (*Mephitis mephitis*), and opossum (*Didelphis virginiana*).

Ruderal

The ruderal communities consist of introduced annual and perennial grasses and forbs associated with highly disturbed habitats. This community was found within the abandoned golf range and non-cultivated portions of the project site. Plant species observed in this community include, Himalayan blackberry (*Rubus discolor*), Bermuda grass (*Cynodon dactylon*), wild radish (*Raphanus sativus*), Italian thistle (*Carduus pycnocephalus*), wild mustard (*Brassica* spp.), prickly lettuce (*Lactuca serriola*), milk thistle (*Silybum marianum*), common knotweed (*Polygonum arenastrum*), cheeseweed (*Malva parviflora*), field bindweed (*Convolvulus arvensis*), horseweed (*Conyza canadensis*), and prickly sow-thistle (*Sonchus asper)*. Wildlife species found in this habitat type would be similar to those found within agricultural habitats.

Urban

Urban habitats are those areas where the native vegetation has been cleared for residential, commercial, industrial, transportation or recreational structures. Developed areas include areas that have structures, paved surfaces, and horticultural plantings. The project site, on the golf range side, contained a paved parking lot and a club house. The agricultural side had a small structure where the farmer sales the strawberries and other produce.

Species Observed

Tables 1 and 2 summarize the species observed at and in the vicinity of the project site during the September 29, 2008 survey.

TABLE 1

LODI SOUTH HUTCHINS WILDLIFE SPECIES LIST

Scientific Name	Common Name
Anatis rathvoni	Lady bug
Anna calypte	Anna's hummingbird
Aphelocoma californica	Western scrub jay
Apis mellifera	Honey bee
Artogeia rapae	White cabbage butterfly
Buteo lineatus	Red-shouldered hawk
Canis latrans	Coyote (scat)
Carduelis tristis	American goldfinch
Carpodacus mexicanus	House finch
Charadrius vociferus	Killdeer
Chondestes grammacus	Lark sparrow
Colaptes auratus	Northern flicker
Columbia livia	Rock dove
Corvus brachyrhynchos	American crow
Lepus californicus	Black-tailed jackrabbit
Melanerpes formicivorus	Acorn woodpecker
Mimus polyglottos	Northern mockingbird
Passer domesticus	House sparrow
Pentatomidae Family	Stink bug
Picoides nuttallii	Nuttall's woodpecker
Procyon lotor	Raccoon
Psaltriparus minimus	Bushtit
Sayornis nigricans	Black phoebe
Sayornis saya	Say's phoebe
Sceloporus occidentalis	Western fence lizard
Sialia mexicana	Western bluebird
Spermophilus beecheyi	California ground squirrel
Sturnella neglecta	Western meadowlark
Sturnus vulgaris	European starling
Thomomys bottae	Valley pocket gopher
Turdus migratorius	American robin
Vespinae Subfamily	Yellow jacket
Zenaida macroura	Mourning dove
Zonotrichia leucophrys	White-crowned sparrow

TABLE 2

LODI SOUTH HUTCHINS PLANT SPECIES LIST

Scientific Name	Common Name
Acer palmatum	Japanese maple
Allium spp.	Onion
Amaranthus albus	Tumble weed
Avena fatua	Wild oats
Brassica oleracea var. botrytis	Broccoli
Brassica oleracea var. capitata	Cabbage
Brassica rapa	Birdsrape mustard
Brome spp.	Brome
Bromus diandrus	Rip-gut brome
Bromus rubens	Red brome
Capsicum frutescens	Bird's eye chili
Centaurea solstitialis	Yellow start thistle
Chenopodium album	Lamb's quarters
Citrullus lanatus var. lanatus	Watermelon
Conyza bonariensis	Asthma weed
Conyza canadensis	Horseweed
Croton setigerus	Dove weed
Cucurbita spp.	Squash
Cynodon dactylon	Bermuda grass
Cyperus eragrostis	Tall flatsedge
Deschampsia cespitosa	Tufted hairgrass
Epilobium brachycarpum	Annual fireweed
Fabaceae spp.	Pea
Fragaria ananassa	Strawberry
Fraxinus velutina	Modesto ash
Lactuca serriola	Prickly lettuce
Lolium perenne	Perennial ryegrass
Lycopersicon spp.	Tomatoe
Malva parviflora	Cheeseweed
Panicum capillere	Witchgrass
Phalaris minor	Little seed canary grass
Poa pratensis	Kentucky bluegrass
Polygonum eranastrum	Common knotweed
Pyracantha coccinea	Scarlet firethorn
Quercus lobata	Valley oak
Raphanus sativus	Wild radish
Rubus discolor	Himalayan blackberry
Salix spp.	Willow
Salsola tragus	Russianthistle
Senecio vulgaris	Common groundsel
Silybum marianum	Blessed milkthistle
Tilia chordate	Tilia
Vitis spp.	Wine grape
Zea mayz	Corn

Wetlands

No wetlands were observed during the September 29, 2008 field survey conducted by PBS&J.

Riparian Habitat

No riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service were found during the September 29 2008 field survey.

Wildlife Corridor

The area north of the project site lies within the City of Lodi and is currently developed. The area east, south and west is currently agricultural fields. Given the existing development north of the site and regular disturbance associated with agricultural uses, it is unlikely that the site would serve as a migratory corridor or a nursery site. Furthermore, the area where the project site is located is not identified as a missing linkage on the California Wilderness Coalition California's Missing Linkages Report.[1]

Special-Status Species

PBS&J conducted a search of the CNDDB and the California Native Plant Society Electronic Inventory of Rare and Endangered Plants and two plant species were determined to occur in the vicinity of the project site; Mason's lilaeopsis (*Lilaeopsis masonii*) and succulent owl's clover (*Castilleja campestris ssp. succulenta*). The Mason's lilaeopsis is typically found in riparian, freshwater-marsh, brackish-marsh habitat, whereas the succulent owl's clover is typically found in vernal pools. Due to the high degree of disturbance on the project site related to agricultural cultivation and golf range activities, and the fact that no riparian, freshwater marsh, brackish-marsh or vernal pool habitat were found in the project site, the site does not contain suitable habitat for any special-status plant species known from the region.

According to the CNDDB a total of five special-status species are known to occur in the vicinity of the project site (See Attachment A). However, based on habitats present, special-status species with the potential to occur in the project area and potentially be impacted by the proposed project are the Swainson's hawk (*Buteo swainsoni*), and burrowing owl (*Athene cunicularia*).

Swainson's hawk is a state threatened species. It breeds in stands with few trees in juniper-sage flats, riparian areas, or oak savannah adjacent to suitable foraging habitat such as grasslands, alfalfa or grain fields with rodent populations. Threats to Swainson's hawk include development, resulting in the loss of foraging and nesting habitat. The agricultural fields within and adjacent to the project site represent suitable foraging habitat for Swainson's hawk.

---

[1] California Wilderness Coalition. *California's Missing Linkages Restoring Connectivity to the California Landscape*. Available online at http://www.calwild.org/pubs/reports/linkages/index.htm

Burrowing owl is listed as a state species of special concern. Burrowing owls feed on rodents, small reptiles, and large insects in annual grasslands, pastures, and ruderal vegetation. They breed between March and August in communal burrow colonies that they have taken over from ground squirrels and other burrowing mammals. Grasslands and open ruderal habitats along the proposed project could provide suitable habitat for this species.

Applicable Regulations

San Joaquin Multiple Species Conservation Plan

In an effort to protect sensitive and threatened species throughout San Joaquin County, the San Joaquin Council of Governments (SJCOG) prepared the SJMSCP. The purpose of the San Joaquin Multiple Species Conservation Plan (SJMSCP) is to provide a county-wide strategy for preserving open space, provide for the long-term management of plant, fish and wildlife species, especially those that are currently listed or may be listed in the future under the FESA or the CESA, and to provide and maintain multiple-use open spaces that contribute to the quality of life of the residents of San Joaquin County. The City of Lodi has adopted the SJMSCP. The habitat type, where the Project Site is located, is classified as Vegetation Type C4 Row and Field Crops (unditched). The current 2008 Agricultural Fee per acre is $12,329[2]

Impacts

Potential nesting habitat for birds including Swainson's hawk and burrowing owl as well as other migratory bird species, protected under the Migratory Bird Treaty Act, occurs on the project site. This habitat consists of trees within the project site and; ground squirrel burrows on the driving range. Activities associated with the construction of the proposed project in close proximity to active nest sites (i.e., within 500 feet) or burrows could disturb nesting birds, if present.

In addition, Swainson's hawk, burrowing owls, and other raptors forage (search for food) over agricultural land and ruderal fields, which comprises the majority of the project site. Swainson's hawks forage up to 10 miles from their nests and 30 recorded nests have been documented in the CNDDB within 10 miles of the project site, the closest of which is within approximately one mile to the southwest. The California Department of Fish and Game (DFG) recommends mitigation for projects that result in the loss of Swainson's hawk foraging habitat within 10 miles of active nest sites.

Implementation of the proposed project could result in direct impacts to some or all of the special-status wildlife species listed above, or in the disturbance of habitats that support these species.

[2] SJCOG, Inc. 2008 Updated Habitat Fees. Available online at http://www.sjcog.org/docs/pdf/HTAC/HCP-2008-Fees-and-Endowment.pdf

Recommendations

The following measures are recommended to reduce potential impacts associated with the proposed project to less-than-significant levels.

1. *Swainson's Hawk foraging habitat*

   The project applicant shall ensure that mitigation for loss of Swainson's hawk foraging habitat within San Joaquin County occurs through one of the following measures. Should measures b, c, or d be implemented, the project applicant shall ensure that an appropriate number of acres (as approved by CDFG) or agricultural land, annual grasslands, or other suitable raptor foraging habitat are preserved off site at a habitat preservation bank within San Joaquin County at a 1 to 0.5 (habitat lost to preserved) ratio.

   a) *The Project Site is located within the boundaries of the San Joaquin County Multi-species Habitat Conservation and Open Space Plan. Half of the site is an abandoned golf range located in a "no-pay" zone and half is within the "agricultural habitat pay zone." As such, the project applicant could seek coverage under the Plan. Additionally, the project applicant would be required to conduct "Incidental Take Minimization Measures," that for this site would likely include preconstruction surveys for nesting birds.*

   b) *Purchase of mitigation credits at an approved CDFG mitigation bank that is within San Joaquin County.*

   c) *Payment of a mitigation fee to a habitat development and management company, through a negotiated agreement between said company, the project applicant, and CDFG. The lands must be within 10 miles of the nearest Swainson's hawk nest (consistent with CDFG guidelines).*

   d) *Purchase of conservation easements or fee title in San Joaquin County. This mitigation must occur within 10 miles of the nearest Swainson's hawk nest, unless otherwise approved by CDFG (consistent with CDFG Guidelines).*

2. *Nesting Birds*

   Between March 1 and September 15, the project applicant shall have a qualified biologist conduct nest surveys no more than 30 days prior to any demolition/construction or ground disturbing activities that are within 500 feet of potential nest trees or suitable nesting habitat (i.e., trees, grassland). A pre-construction survey shall be submitted to CDFG that includes, at a minimum: (1) a description of the methodology including dates of field visits, the names of survey personnel with resumes, and a list of references cited and persons contacted; and (2) a map showing the location(s) of any bird nests observed on the Project Site. If no active nests of

Migratory Bird Treaty Act (MBTA) covered species are identified, then no further mitigation is required.

If active nests of protected bird species are identified in the focused nest surveys, the project applicant shall take the following steps.

a) *The project applicant, in consultation with San Joaquin County and CDFG, shall delay construction in the vicinity of active nest sites during the breeding season (March 1 through September 15) while the nest is occupied with adults and/or young. A qualified biologist shall monitor any occupied nest to determine when the nest is no longer used. If the construction cannot be delayed, avoidance measures shall include the establishment of a non-disturbance buffer zone around the nest site. The size of the buffer zone shall be determined in consultation with the CDFG, but will be a minimum of 100 feet. The buffer zone shall be delineated with highly visible temporary construction fencing.*

b) *No intensive disturbance (e.g., heavy equipment operation associated with construction, or use of cranes) or other project-related activities that could cause nest abandonment or forced fledging, shall be initiated within the established buffer zone of an active nest between March 1 and September 15.*

c) *If construction activities are unavoidable within the buffer zone, the project applicant shall retain a qualified biologist to monitor the nest site to determine if construction activities are disturbing the adult or young birds. If abandonment occurs, the biologist shall consult with CDFG or USFWS (who monitor compliance with the MBTA) for the appropriate salvage measures. The project applicant will be required to fund the full costs of the salvage measures.*

3. *Burrowing owl*

The project applicant shall hire a qualified biologist to conduct a pre-construction burrowing owl survey. If nesting owls are found, no disturbance shall be allowed within 160-feet of the active nest burrow between February 1 and August 31. Outside the nesting season, and/or upon confirmation by the qualified biologist, and in consultation with CDFG, that all young have fledged and left an active nest, burrowing owls present in the burrow shall be excluded from the burrow(s) by a qualified biologist through a passive relocation as outlined in the California Burrowing Owl Consortium's April 1993 Burrowing Owl Survey Protocol and Mitigation Guidelines. Once the burrows have been cleared, they must be hand-excavated and collapsed prior to project construction.

ATTACHMENT A

Athene cunicularia

burrowing owl

Element Code: ABNSB10010

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G4	**CDFG Status:** SC
State: None	**State:** S2	

Habitat Associations

General: OPEN, DRY ANNUAL OR PERENIAL GRASSLANDS, DESERTS & SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.

Micro: SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.

Occurrence No. 320 **Map Index:** 41036 **EO Index:** 41036

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1999-05-04
Site: 1999-05-04
Record Last Updated: 1999-05-11

Quad Summary: Lodi South (3812113/479D)
County Summary: San Joaquin

Lat/Long: 38.02408º / -121.26470º
UTM: Zone-10 N4209907 E652310
Mapping Precision: SPECIFIC
Symbol Type: POINT
Radius: 80 meters

Township: 02N
Range: 06E
Section: 13 **Qtr:** NE
Meridian: M
Elevation: 30 ft

Location: 0.2 MILE NORTH OF HAMMER LANE AND 0.3 MILE WEST OF HIGHWAY 99, EAST OF STOCKTON.

Location Detail: BURROW SITE IS LOCATED ALONG THE SOUTH EDGE OF MOKELUMNE AQUEDUCT ROAD.

Ecological: HABITAT CONSISTS OF OPEN FIELDS OF NON-NATIVE GRASSLAND, VEGETATED BY ANNUAL GRASSES AND BROADLEAF SPECIES, SUCH AS OATS, BLACK MUSTARD, WILD RADISH, AND POA SP. SOME FIELDS ARE DISKED, MINIMIZING FORAGE VALUE.

Threat: POSSIBLE THREAT FROM EBMUD ROAD MAINTENANCE ACTIVITIES.

General: 1 ADULT OBSERVED AT THE BURROW SITE ON 4 MAY 1999.

Owner/Manager: UNKNOWN

Athene cunicularia

burrowing owl

Element Code: ABNSB10010

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G4	**CDFG Status:** SC
State: None	**State:** S2	

Habitat Associations

General: OPEN, DRY ANNUAL OR PERENIAL GRASSLANDS, DESERTS & SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.

Micro: SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.

Occurrence No. 550 **Map Index:** 49238 **EO Index:** 49238

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2002-10-17
Site: 2002-10-17

Record Last Updated: 2002-11-01

Quad Summary: Lodi South (3812113/479D)

County Summary: San Joaquin

Lat/Long: 38.03973º / -121.37043º
UTM: Zone-10 N4211476 E642999
Mapping Precision: SPECIFIC
Symbol Type: POLYGON
Area: 14.1 acres

Township: 02N
Range: 06E
Section: 07 **Qtr:** NW
Meridian: M
Elevation: 5 ft

Location: LEVY ROAD SOUTH OF BEAR CREEK & NORTH OF MOSHER SLOUGH. 0.2 MI WEST OF I-5. NW OF STOCKTON

Location Detail: BURROWS LOCATED ON RAISED LEVY WITH GRAVEL ROAD.

Ecological: VEGETATION AROUND THE LEVY IS RELATIVELY SPARSE, CONSISTING MOSTLY OF ANNUAL UPLAND GRASSES AND TUMBLEWEEDS. SUBDIVISION TO THE EAST, OPEN FIELDS WITH POTENTIAL AG USES TO THE WEST.

Threat: LEVY SITE IS PROPOSED FOR REMOVAL & MODIFICATION INTO A PAVED PUBLIC ROAD.

General: 2 BURROWS, 2 ADULTS AND 1 RELATIVELY FULL-GROWN JUVENILE OBSERVED ON 17 OCT 2002.

Owner/Manager: CITY OF STOCKTON

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status		NDDB Element Ranks		Other Lists	
Federal:	None	**Global:**	G5	**CDFG Status:**	
State:	Threatened	**State:**	S2		

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 16 **Map Index:** 11504 **EO Index:** 27289

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1990-XX-XX
Site: 1989-XX-XX
Record Last Updated: 1995-11-02

Quad Summary: Lodi South (3812113/479D)
County Summary: San Joaquin

Lat/Long: 38.05741º / -121.37023º
UTM: Zone-10 N4213438 E642982
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Radius: 1/5 mile

Township: 02N
Range: 06E
Section: 06 **Qtr:** NW
Meridian: M
Elevation: 5 ft

Location: EIGHTMILE ROAD AND I-5, ALONG THE NORTHERN EDGE OF OAK GROVE REGIONAL PARK, NORTH OF STOCKTON.

Location Detail: ADULTS OBSERVED PERCHING AND SOARING IN 1979, 1982, AND 1983. NEST SITE OF A SUCCESSFUL BREEDING PAIR IN 1987 AND 1988; IN APRIL 1989, NEST WAS ABANDONED. IN 1990, AN ADULT PAIR WAS OBSERVED ROOSTING, BUT NO NESTING OCCURRED.

Ecological: NEST TREE IS A VALLEY OAK, SURROUNDED BY OPEN AGRICULTURAL LAND.

Threat: MAIN THREAT IS ENCROACHING URBANIZATION; ALSO, HUMAN DISTURBANCE.

General: DFG SWHA #SJ006. NEST SITE WAS ABANDONED IN 1989 AFTER A KITE-FLYING CONTEST WAS HELD AND A HELICOPTER PAD WAS INSTALLED (FOR THE ASPARAGUS FESTIVAL) NEAR THE NEST SITE.

Owner/Manager: SJQ COUNTY

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 158 **Map Index:** 11510 **EO Index:** 27138

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1981-06-25
Site: 1982-06-29
Record Last Updated: 1989-08-10

Quad Summary: Lodi South (3812113/479D)
County Summary: San Joaquin

Lat/Long: 38.03575º / -121.36828º
UTM: Zone-10 N4211038 E643195
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Radius: 1/5 mile

Township: 02N
Range: 06E
Section: 07 **Qtr:** SW
Meridian: M
Elevation: 5 ft

Location: HAMMER LANE AND FRONTAGE ROAD JUNCTION
Location Detail:
Ecological:
Threat:
General: DFG SWHA #SJ018. 1 LIGHT PHASE ADULT OBSERVED, NO NEST FOUND.
Owner/Manager: PVT

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status		NDDB Element Ranks		Other Lists	
Federal:	None	**Global:**	G5	**CDFG Status:**	
State:	Threatened	**State:**	S2		

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 160 **Map Index:** 11536 **EO Index:** 27137

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1982-04-27
Site: 1982-04-27
Record Last Updated: 1989-08-10

Quad Summary: Lodi South (3812113/479D)
County Summary: San Joaquin

Lat/Long: 38.00547º / -121.35829º
UTM: Zone-10 N4207693 E644131
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Radius: 1/5 mile

Township: 02N
Range: 06E
Section: 19 **Qtr:** W
Meridian: M
Elevation:

Location: FIVE-MILE ROAD AND FORT DONELSON, WEST OF STOCKTON
Location Detail:
Ecological:
Threat:
General: DFG SWHA #SJ019. 1 DARK PHASE ADULT OBSERVED SOARING; NO NEST FOUND.
Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 290 **Map Index:** 17257 **EO Index:** 12004

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Stable

Dates Last Seen
Element: 1992-XX-XX
Site: 1992-XX-XX

Record Last Updated: 2001-03-20

Quad Summary: Lodi South (3812113/479D)

County Summary: San Joaquin

Lat/Long:	38.05080º / -121.36446º	**Township:**	02N
UTM:	Zone-10 N4212714 E643501	**Range:**	06E
Mapping Precision:	NON-SPECIFIC	**Section:**	06 **Qtr:** NW
Symbol Type:	POINT	**Meridian:**	M
Radius:	1/5 mile	**Elevation:**	5 ft

Location: ALONG THE SOUTHERN BOUNDARY OF OAK GROVE REGIONAL PARK, JUST SE OF THE I-5/EIGHTMILE ROAD JUNCTION, STOCKTON.

Location Detail: THIS PAIR NESTED IN A VALLEY OAK IN 1987, 1988, AND 1990; A TREE 200 YDS TO THE EAST WAS USED IN 1989, POSSIBLY DUE TO THE PRESENCE OF GREAT HORNED OWLS.

Ecological: NEST TREES ARE TWO VALLEY OAKS, ABOUT 0.3 MI APART, WITHIN A REMNANT MATURE OAK WOODLAND; SURROUNDING FORAGING HABITAT IS AGRICULTURAL FIELDS.

Threat: THE MAIN THREAT IS URBANIZATION OF THIS PAIR'S FORAGING AREA (AGRICULTURAL LAND).

General: DFG SWHA #SJ059. NO YOUNG FLEDGED IN 1989. 3 NESTLINGS OBSERVED ON 2 JUN 1990; FLEDGED BY 7 JUL 1990. 1 YOUNG FLEDGED IN 1991. IN 1992, NESTING OCCURRED; NO YOUNG FLEDGED. SOARING BIRD OBSERVED ON 12 JUL 2000, BUT NESTING NOT CONFIRMED.

Owner/Manager: SJQ COUNTY

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 291 **Map Index:** 17258 **EO Index:** 12003

Occ Rank: None
Origin: Natural/Native occurrence
Presence: Extirpated
Trend: Decreasing

Dates Last Seen
Element: 1989-XX-XX
Site: 1990-XX-XX
Record Last Updated: 1996-01-11

Quad Summary: Lodi South (3812113/479D)
County Summary: San Joaquin

Lat/Long: 38.02976º / -121.35753º
UTM: Zone-10 N4210390 E644151
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Radius: 1/5 mile

Township: 02N
Range: 06E
Section: 07 **Qtr:** SE
Meridian: M
Elevation: 5 ft

Location: MOSHER SLOUGH, NEAR THE INTERSECTION OF ESTATE DRIVE AND WAGNER HEIGHTS ROAD, STOCKTON.

Location Detail: THIS NEST SITE IS LOCATED ON WHAT WAS FORMERLY THE HOLT RANCH. A HOSPITAL ANNEX HAS BEEN BUILT AMONG THIS GROVE OF OAK TREES, POSSIBLY MAKING THIS SITE UNSUITABLE FOR NESTING.

Ecological:

Threat: DEVELOPMENT MAY HAVE ALREADY CAUSED EXTIRPATION OF THIS SITE.

General: THIS WAS AN ACTIVE NEST SITE IN 1988; IN 1989, ADULT SWAINSON'S HAWKS WERE PRESENT, BUT NESTING WAS NOT CONFIRMED; IN 1990, NO ADULTS/NESTING WAS OBSERVED.

Owner/Manager: PVT

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 292 **Map Index:** 17259 **EO Index:** 12002

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Stable

Dates Last Seen
Element: 1995-04-24
Site: 1995-04-24

Record Last Updated: 2001-03-20

Quad Summary: Lodi South (3812113/479D)

County Summary: San Joaquin

Lat/Long: 38.04626º / -121.31903º
UTM: Zone-10 N4212281 E647497
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Radius: 1/5 mile

Township: 02N
Range: 06E
Section: 04 **Qtr:** SE
Meridian: M
Elevation: 20 ft

Location: JUST EAST OF THE LOWER SACRAMENTO ROAD JUNCTION WITH UNION PACIFIC RAILROAD TRACKS, STOCKTON.

Location Detail: NEST TREE IS LOCATED WITHIN A EUCALYPTUS GROVE BEHIND THE RESIDENCE AT 10266 LOWER SACRAMENTO ROAD.

Ecological: NEST TREE IS A EUCALYPTUS; SURROUNDING HABITAT IS AGRICULTURAL FIELDS (HAY, ALFALFA, SUGAR BEETS), WITH SOME RESIDENCES AND A SHOPPING CENTER TO THE SOUTH.

Threat: THE MAIN THREAT IS URBANIZATION OF THE PAIR'S SURROUNDING AGRICULTURAL FORAGING AREA.

General: DFG SWHA #SJ047. SITE HAS BEEN ACTIVE SINCE AT LEAST 1987, WITH 3 YOUNG FLEDGED IN 1990 AND 1 IN 1991; OCCUPIED, BUT NO YOUNG WERE FLEDGED IN 1992; PAIR OBSERVED NESTING ON 24 APRIL 1995.

Owner/Manager: PVT

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 293 **Map Index:** 17261 **EO Index:** 22291

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1992-XX-XX
Site: 1992-XX-XX
Record Last Updated: 1993-05-19

Quad Summary: Lodi South (3812113/479D)
County Summary: San Joaquin

Lat/Long:	38.03628º / -121.30435º	**Township:**	02N
UTM:	Zone-10 N4211197 E648805	**Range:**	06E
Mapping Precision:	NON-SPECIFIC	**Section:**	10 **Qtr:** XX
Symbol Type:	POINT	**Meridian:**	M
Radius:	1/5 mile	**Elevation:**	20 ft

Location: 0.5 MI WEST OF THE JUNCTION OF MORADA LANE AND WEST LANE, STOCKTON.

Location Detail: NEST TREE USED IN 1992 WAS A DIFFERENT TREE THAN USED IN 1990 AND 1991.

Ecological: NEST TREE IS A VALLEY OAK WITHIN A MATURE RIPARIAN AREA; SURROUNDING FORAGING HABITAT IS AGRICULTURAL LAND (ALFALFA, CORN, HAY).

Threat: THE AGRICULTURAL FORAGING AREA IS LIKELY TO BE URBANIZED. NEST TREE IS IN THE PATH OF PROPOSED EXTENSION OF MORADA LANE.

General: DFG SWHA #SJ064. TWO NESTLINGS WERE OBSERVED IN 1990, AND PRESUMABLY FLEDGED BY 12 JULY. IN 1991, 1 YOUNG WAS FLEDGED. IN 1992, NESTING WAS ATTEMPTED IN A DIFFERENT NEST TREE, BUT WAS NOT SUCCESSFUL.

Owner/Manager: PVT-ALPINE PACKING CO

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status		NDDB Element Ranks		Other Lists	
Federal:	None	**Global:**	G5	**CDFG Status:**	
State:	Threatened	**State:**	S2		

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 294 **Map Index:** 17262 **EO Index:** 11999

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1990-05-XX
Site: 1990-05-XX
Record Last Updated: 1990-12-20

Quad Summary: Lodi South (3812113/479D)
County Summary: San Joaquin

Lat/Long:	38.03684º / -121.27671º	**Township:**	02N		
UTM:	Zone-10 N4211304 E651230	**Range:**	06E		
Mapping Precision:	NON-SPECIFIC	**Section:**	12	**Qtr:**	NW
Symbol Type:	POINT	**Meridian:**	M		
Radius:	1/5 mile	**Elevation:**	30 ft		

Location: JUNCTION OF MORADA LANE AND MOSHER SLOUGH, STOCKTON.

Location Detail: ONE OR A PAIR OF ADULTS WERE OBSERVED ON EVERY VISIT TO THIS AREA IN MARCH, APRIL, AND UNTIL EARLY MAY, AFTER WHICH THEY WERE NO LONGER SEEN. SEVERAL NESTS FROM YEARS PAST WERE DISCOVERED, BUT NO ACTIVE NEST WAS FOUND IN 1990.

Ecological:

Threat: THIS NESTING TERRITORY IS SLATED FOR DEVELOPMENT IN THE NEAR FUTURE.

General:

Owner/Manager: PVT

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 295 **Map Index:** 17264 **EO Index:** 11998

Occ Rank: None
Origin: Natural/Native occurrence
Presence: Possibly Extirpated
Trend: Decreasing

Dates Last Seen
Element: 1990-06-XX
Site: 1992-XX-XX

Record Last Updated: 2002-11-05

Quad Summary: Lodi South (3812113/479D)

County Summary: San Joaquin

Lat/Long: 38.04244º / -121.26204º
UTM: Zone-10 N4211949 E652506
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Radius: 1/10 mile

Township: 02N
Range: 06E
Section: 12 **Qtr:** NE
Meridian: M
Elevation: 35 ft

Location: ALONG THE SOUTH SIDE OF MOSHER SLOUGH, 0.2 MI WEST OF ITS JUNCTION WITH HWY 99, SE OF STOCKTON.

Location Detail: NEST TREE IS THE SIXTH LARGE TREE WEST OF HWY 99.

Ecological: NEST TREE IS A VALLEY OAK; SURROUNDING HABITAT IS OAK RIPARIAN AND AGRICULTURAL LAND (HAY, ALFALFA, SUGAR BEETS, BEANS, ETC).

Threat: "LA MORADA" SUBDIVISION, APPROVED BY THE CITY OF STOCKTON IN 1989, WILL DESTROY THE FORAGING HABITAT FOR THIS PAIR.

General: DFG SWHA #SJ061. UPON ABANDONING THIS NEST, THE ADULTS DISMANTLED IT, STICK BY STICK; NO NEW NEST LOCATION FOUND. ABANDONMENT MAY HAVE BEEN DUE TO THE AREA BENEATH THE NEST TREE BECOMING A POPULAR FISHING SPOT. NO RE-NESTING IN 1991-92.

Owner/Manager: PVT-GRUPE DEVELOPMENT CO

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 296 **Map Index:** 17265 **EO Index:** 17763

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2003-04-08
Site: 2003-04-08

Record Last Updated: 2003-05-27

Quad Summary: Lodi South (3812113/479D)

County Summary: San Joaquin

Lat/Long: 38.05681º / -121.26163º
UTM: Zone-10 N4213544 E652512
Mapping Precision: SPECIFIC
Symbol Type: POINT
Radius: 80 meters

Township: 02N
Range: 06E
Section: 01 **Qtr:** NE
Meridian: M
Elevation: 35 ft

Location: SW OF THE JUNCTION OF EIGHT MILE ROAD AND HIGHWAY 99, STOCKTON

Location Detail: HISTORIC NEST TREE WAS A VALLEY OAK AMONG A MIX OF OAKS, PALMS, & PINES AROUND A DEMOLISHED FARM HOUSE. IN 2001, NEST TREE WAS A EUCALYPTUS WITHIN THE HWY99/EIGHT MILE ROAD CLOVERLEAF. 2002 NEST TREE WAS A VALLEY OAK WITHIN THE CLOVERLEAF.

Ecological: NEST TREE IS A VALLEY OAK; SURROUNDING FORAGING HABITAT CURRENTLY INCLUDES GRAIN AND ROW CROPS. LAND USE IN THE IMMEDIATE VICINITY INCLUDES AGRICULTURE, RURAL RESIDENTIAL, AND SMALL BUSINESSES.

Threat: THREATENED BY DEVELOPMENT.

General: DFG SWHA #SJ060. 2 ADULTS/3 NESTLINGS, 3 MAY 1990; 3 FLEDGED BY 27 JUL 1990. 1991: 1 FLEDGED. 1992: ACTIVE, BUT UNSUCCESSFUL. NEST ACTIVE IN 2000. ACTIVE NEST WITH 1 ADULT, 12 APR 2001. 2002: 1 YOUNG FLEDGED. 2 ADULTS NESTING, 8 APR 2003.

Owner/Manager: CALTRANS, PVT

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 297 **Map Index:** 17268 **EO Index:** 11992

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1992-XX-XX
Site: 1992-XX-XX

Record Last Updated: 1993-06-09

Quad Summary: Stockton West (3712183/462A), Lodi South (3812113/479D)

County Summary: San Joaquin

Lat/Long: 37.99754º / -121.28904º
UTM: Zone-10 N4206923 E650228
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Radius: 1/5 mile

Township: 02N
Range: 06E
Section: 29 **Qtr:** NW
Meridian: M
Elevation: 20 ft

Location: JUST SOUTHWEST OF THE JUNCTION OF WEST LANE AND BIANCHI ROAD, STOCKTON.

Location Detail:

Ecological: NEST TREE IS A VALLEY OAK WITHIN A SMALL, REMNANT OAK FOREST ALONG THE NORTH BANK OF THE CALAVERAS RIVER; SURROUNDING FORAGING HABITAT CONSISTS OF AGRICULTURAL FIELDS.

Threat: THE SURROUNDING AGRICULTURAL FORAGING AREA IS UNDERGOING RAPID CONVERSION TO RESIDENTIAL HOUSING.

General: DFG SWHA #SJ046. NESTING OCCURRED IN 1989, BUT WAS UNSUCCESSFUL. 3 NESTLINGS WERE OBSERVED ON 29 MAY 1990, AT LEAST 2 OF WHICH FLEDGED BY 7 JULY 1990. NO NESTING OCCURRED IN 1991. IN 1992, NESTING OCCURRED AND 2 YOUNG WERE FLEDGED.

Owner/Manager: PVT

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status		NDDB Element Ranks		Other Lists	
Federal:	None	**Global:**	G5	**CDFG Status:**	
State:	Threatened	**State:**	S2		

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 580 **Map Index:** 23625 **EO Index:** 7550

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1991-XX-XX
Site: 1991-XX-XX

Record Last Updated: 1996-03-05

Quad Summary: Lodi South (3812113/479D)
County Summary: San Joaquin

Lat/Long: 38.05537º / -121.34704º
UTM: Zone-10 N4213248 E645021
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Radius: 1/5 mile

Township: 02N
Range: 06E
Section: 05 **Qtr:** NW
Meridian: M
Elevation: 10 ft

Location: SE OF THE INTERSECTION OF THORNTON ROAD AND EIGHTMILE ROAD, NNW OF STOCKTON.
Location Detail:
Ecological: NEST TREE IS A FARMHOUSE VALLEY OAK.
Threat:
General: DFG SWHA #SJ. IN 1991, 1 YOUNG WAS FLEDGED AT THIS NEST SITE.
Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status		NDDB Element Ranks		Other Lists	
Federal:	None	**Global:**	G5	**CDFG Status:**	
State:	Threatened	**State:**	S2		

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 581 **Map Index:** 23626 **EO Index:** 7548

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1992-XX-XX
Site: 1992-XX-XX
Record Last Updated: 1993-05-19

Quad Summary: Lodi South (3812113/479D)
County Summary: San Joaquin

Lat/Long: 38.03958º / -121.33975º
UTM: Zone-10 N4211507 E645691
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Radius: 2/5 mile

Township: 02N
Range: 06E
Section: 08 **Qtr:** NE
Meridian: M
Elevation: 10 ft

Location: NORTH OF THE INTERSECTION OF THORNTON ROAD AND WAGNER HEIGHTS ROAD.
Location Detail:
Ecological: NEST TREE IS AN OAK WITHIN AN URBAN SETTING.
Threat:
General: DFG SWHA #SJ. NESTING OBSERVED IN 1991 AND 1992, IN WHICH 1 YOUNG WAS FLEDGED EACH OF THOSE YEARS. NEST APPEARED INTACT FROM PREVIOUS YEARS.
Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 582 **Map Index:** 23627 **EO Index:** 7549

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1992-XX-XX
Site: 1992-XX-XX

Record Last Updated: 1993-05-19

Quad Summary: Lodi South (3812113/479D)

County Summary: San Joaquin

Lat/Long: 38.02145º / -121.33609º
UTM: Zone-10 N4209501 E646049
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Radius: 2/5 mile

Township: 02N
Range: 06E
Section: 17 **Qtr:** E
Meridian: M
Elevation: 10 ft

Location: ALONG HAMMER LANE, WEST OF PERSHING AVENUE, STOCKTON.

Location Detail:

Ecological: NEST TREE IS AN OAK WITHIN AN URBAN SETTING.

Threat:

General: DFG SWHA #SJ. SOARING BIRD(S) OBSERVED IN THE VICINITY IN 1990, BUT NO NEST FOUND. IN 1991, NESTING BIRDS WERE FOUND, BUT NO YOUNG WERE FLEDGED. 2 YOUNG WERE FLEDGED AT THIS SITE IN 1992.

Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status		NDDB Element Ranks		Other Lists	
Federal:	None	**Global:**	G5	**CDFG Status:**	
State:	Threatened	**State:**	S2		

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 583 **Map Index:** 23624 **EO Index:** 7552

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2002-07-11
Site: 2002-07-11

Record Last Updated: 2006-07-26

Quad Summary: Lodi South (3812113/479D)

County Summary: San Joaquin

Lat/Long: 38.08551º / -121.36741º
UTM: Zone-10 N4216561 E643174
Mapping Precision: SPECIFIC
Symbol Type: POINT
Radius: 80 meters

Township: 03N
Range: 06E
Section: 30 **Qtr:** NW
Meridian: M
Elevation: 10 ft

Location: EAST SIDE OF THORNTON ROAD, 1 MILE WEST OF THE DE VRIES ROAD INTERSECTION WITH ARMSTRONG ROAD, 6 MILES SW OF LODI.

Location Detail:

Ecological: NEST TREE WAS A WILLOW; SURROUNDED BY ROW CROPS IN ALL DIRECTIONS.

Threat:

General: 1 YOUNG FLEDGED FROM THIS NEST SITE IN 1992. NEST PRESENT AND SITE WAS ACTIVE DURING JUN-JUL 2002 VISITS, BUT NO CHICKS OBSERVED.

Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 678 **Map Index:** 33358 **EO Index:** 24651

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1995-04-24
Site: 1995-04-24
Record Last Updated: 1996-03-05

Quad Summary: Lodi South (3812113/479D)
County Summary: San Joaquin

Lat/Long: 38.05205º / -121.34805º
UTM: Zone-10 N4212878 E644938
Mapping Precision: SPECIFIC
Symbol Type: POINT
Radius: 80 meters

Township: 02N
Range: 06E
Section: 05 **Qtr:** NW
Meridian: M
Elevation: 10 ft

Location: 0.5 MILE NORTH OF BEAR CREEK, JUST EAST OF THORNTON ROAD, ON THE NORTH SIDE OF STOCKTON.
Location Detail: HAWKS ARE NESTING IN AN ORNAMENTAL FIR TREE BEHIND A FARM HOUSE.
Ecological: NEST TREE IS AN ORNAMENTAL FIR, IN A LONG ROW OF ORNAMENTAL TREES BORDERING THE NORTH SIDE OF THE PROPERTY. SURROUNDING LAND USE CONSISTS OF AGRICULTURE.
Threat:
General: 2 ADULTS OBSERVED NESTING ON 24 APRIL 1995.
Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 736 **Map Index:** 41423 **EO Index:** 41423

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1999-05-06
Site: 1999-05-06

Record Last Updated: 1999-08-03

Quad Summary: Lodi South (3812113/479D)

County Summary: San Joaquin

Lat/Long: 38.03908º / -121.27066º
UTM: Zone-10 N4211562 E651756
Mapping Precision: SPECIFIC
Symbol Type: POINT
Radius: 80 meters

Township: 02N
Range: 06E
Section: 12 **Qtr:** NW
Meridian: M
Elevation: 30 ft

Location: SOUTH SIDE OF MOSHER (CASTLE?) CREEK, 0.3 MILE EAST OF ITS INTERSECTION WITH MORADA LANE, NE OF STOCKTON.

Location Detail:

Ecological: NEST IS LOCATED WITHIN A MATURE BELT OF VALLEY OAKS THAT RUN ALONG A STRETCH OF MOSHER (CASTLE?) CREEK. NEST SITE IS SURROUNDED BY ALFALFA FIELDS TO THE NORTH, DISKED FIELDS TO THE SOUTH, AND WHEAT TO THE EAST.

Threat: THREATENED BY HOUSING DEVELOPMENT.

General: 2 ADULTS OBSERVED NESTING/FORAGING ON 6 MAY 1999.

Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 737 **Map Index:** 41424 **EO Index:** 41424

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1999-05-13
Site: 1999-05-13

Record Last Updated: 1999-08-03

Quad Summary: Lodi South (3812113/479D)
County Summary: San Joaquin

Lat/Long: 38.09527º / -121.31002º
UTM: Zone-10 N4217734 E648188
Mapping Precision: SPECIFIC
Symbol Type: POINT
Radius: 80 meters

Township: 03N
Range: 06E
Section: 22 **Qtr:** NW
Meridian: M
Elevation: 25 ft

Location: EAST SIDE OF LOWER SACRAMENTO ROAD, 0.6 MILE NORTH OF ARMSTRONG ROAD, SW OF LODI.
Location Detail: NEST TREE IS LOCATED WITHIN RURAL A RESIDENTIAL AREA.
Ecological: NEST TREE IS SURROUNDED BY AGRICULTURAL FIELDS.
Threat:
General: 2 ADULTS OBSERVED NESTING ON 13 MAY 1999.
Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 819 **Map Index:** 43117 **EO Index:** 43117

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2001-06-28
Site: 2001-06-28

Record Last Updated: 2003-04-01

Quad Summary: Lodi South (3812113/479D)

County Summary: San Joaquin

Lat/Long: 38.08101º / -121.35165º
UTM: Zone-10 N4216086 E644566
Mapping Precision: SPECIFIC
Symbol Type: POINT
Radius: 80 meters

Township: 03N
Range: 06E
Section: 29 **Qtr:** SW
Meridian: M
Elevation: 15 ft

Location: EAST SIDE OF DE VRIES ROAD, 0.4 MILE NORTH OF THE INTERSECTION OF THORNTON ROAD, NORTH OF STOCKTON.

Location Detail: NEST TREE IS LOCATED JUST OFF DE VRIES ROAD, AT AN ABANDONED HOUSE AT 11800 DE VRIES ROAD, LODI.

Ecological: NEST TREE IS A 70-FT TALL EUCALYPTUS WITHIN A SMALL STAND OF OTHER SMALL EUCALYPTUS TREES. SURROUNDING HABITAT CONSISTS OF CORN, ALFALFA, AND VINEYARDS.

Threat: THREATS INCLUDE ROAD CONSTRUCTION AND HEAVY MACHINERY DISTURBANCE ASSOCIATED WITH FARMING.

General: 2 ADULTS OBSERVED NESTING ON 2 JUN 2000. 1 JUVENILE OBSERVED IN THE NEST ON 28 JUN 2001.

Owner/Manager: PVT

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status		NDDB Element Ranks		Other Lists	
Federal:	None	**Global:**	G5	**CDFG Status:**	
State:	Threatened	**State:**	S2		

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 932 **Map Index:** 45348 **EO Index:** 45348

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2003-07-15
Site: 2003-07-15

Record Last Updated: 2006-08-02

Quad Summary: Lodi South (3812113/479D)

County Summary: San Joaquin

Lat/Long:	38.08050º / -121.25772º	**Township:**	03N		
UTM:	Zone-10 N4216180 E652805	**Range:**	07E		
Mapping Precision:	SPECIFIC	**Section:**	30	**Qtr:**	NW
Symbol Type:	POLYGON	**Meridian:**	M		
Area:	13.5 acres	**Elevation:**	40 ft		

Location: WEST OF PIXLEY SLOUGH AND EAST OF HIGHWAY 99, JUST NORTH OF LIVE OAK ROAD, SOUTH OF LODI.

Location Detail: 2001 NEST TREE WAS A 40-FT VALLEY OAK WITHIN A SMALL BAND OF VALLEY OAKS AND SOME COTTONWOODS, LOCATED TO THE SE OF THE 2003 NEST TREE.

Ecological: 2003 NEST TREE WAS A CEDAR; SURROUNDED BY RESIDENTIAL TO THE SE AND ORCHARD/VINEYARD TO THE NE, NW, AND SW.

Threat:

General: 2 ADULTS OBSERVED FORAGING AND BRINGING PREY ITEMS TO THE NEST ON 10 MAY 2001. NEST OBSERVED ON 29 APR; ADULTS DELIVERED FOOD TO THE NEST ON 15 JUL 2003, ALTHOUGH NO CHICK WAS VISIBLE.

Owner/Manager: PVT

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 934 **Map Index:** 45517 **EO Index:** 45517

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2001-07-05
Site: 2001-07-05

Record Last Updated: 2001-08-07

Quad Summary: Lodi South (3812113/479D)

County Summary: San Joaquin

Lat/Long: 38.03126º / -121.33222º
UTM: Zone-10 N4210596 E646369
Mapping Precision: SPECIFIC
Symbol Type: POINT
Radius: 80 meters

Township: 02N
Range: 06E
Section: 08 **Qtr:** SE
Meridian: M
Elevation: 15 ft

Location: APPROXIMATELY 990 FEET NORTH OF THE INTERSECTION OF DAVIS ROAD AND THORNTON ROAD, STOCKTON

Location Detail: NEST TREE IS ASSOCIATED WITH A PRIVATE RESIDENCE ALONG DAVIS ROAD.

Ecological: NEST TREE IS AN ORNAMENTAL CEDAR; SURROUNDED BY A FALLOW/DISKED FIELD TO THE WEST.

Threat: THREATENED BY DISTURBANCE FROM CONSTRUCTION ACTIVITIES.

General: ON 5 JUL 2001, THE FEMALE WAS OBSERVED TENDING TO THE JUVENILES AND THE MALE WAS PERCHED ON A BRANCH ABOVE THE NEST.

Owner/Manager: PVT

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 1005 **Map Index:** 50654 **EO Index:** 50654

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2002-06-17
Site: 2002-06-17

Record Last Updated: 2003-03-18

Quad Summary: Lodi South (3812113/479D)

County Summary: San Joaquin

Lat/Long: 38.03180º / -121.25572º
UTM: Zone-10 N4210779 E653082
Mapping Precision: SPECIFIC
Symbol Type: POINT
Radius: 80 meters

Township: 02N
Range: 07E
Section: 07 **Qtr:** SW
Meridian: M
Elevation: 34 ft

Location: 0.4 MILE SSE OF THE INTERSECTION OF HIGHWAY 99 AND MORADA LANE, 2.5 MILES ENE OF STOCKTON

Location Detail: NEST TREE IS LOCATED BEHIND THE MORADA MARKET, EAST OF HIGHWAY 99.

Ecological: NEST TREE IS A DEODAR CEDAR. SURROUNDING HABITAT CONSISTS OF A MODIFIED URBAN LANDSCAPE, WITH OPEN LAND AND AGRICULTURAL FIELDS IN THE VICINITY; RIPARIAN CORRIDORS NEARBY.

Threat: THREATENED BY DEVELOPMENT.

General: 2 ADULTS AND 1 JUVENILE OBSERVED AT THE NEST ON 17 JUN 2002.

Owner/Manager: PVT

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 1225 **Map Index:** 51737 **EO Index:** 51737

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2000-07-13
Site: 2000-07-13
Record Last Updated: 2003-07-10

Quad Summary: Lodi South (3812113/479D), Stockton West (3712183/462A)

County Summary: San Joaquin

Lat/Long: 37.99953º / -121.26644º
UTM: Zone-10 N4207180 E652208
Mapping Precision: SPECIFIC
Symbol Type: POINT
Radius: 80 meters

Township: 02N
Range: 06E
Section: 25 **Qtr:** XX
Meridian: M
Elevation: 25 ft

Location: SOUTH OF MCALLEN ROAD, 0.1 MILE EAST OF THE CALAVERAS RIVER CROSSING, STOCKTON.

Location Detail:

Ecological: NEST TREE IS A 90' DEODAR CEDAR; SURROUNDING AREA CONSISTS OF FALLOW/RUDERAL TO THE SE AND ORCHARDS/VINEYARDS IN ALL OTHER DIRECTIONS.

Threat:

General: 1 RECENTLY-FLEDGED YOUNG OBSERVED, FLAPPING FROM TREE TO TREE AND CALLING TO ADULT OVERHEAD, ON 13 JUL 2000.

Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status		NDDB Element Ranks		Other Lists	
Federal:	None	**Global:**	G5	**CDFG Status:**	
State:	Threatened	**State:**	S2		

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 1235 **Map Index:** 51964 **EO Index:** 51964

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2000-07-24
Site: 2000-07-24
Record Last Updated: 2003-08-04

Quad Summary: Lodi South (3812113/479D)
County Summary: San Joaquin

Lat/Long:	38.03170º / -121.32338º	**Township:**	02N	
UTM:	Zone-10 N4210659 E647144	**Range:**	06E	
Mapping Precision:	SPECIFIC	**Section:**	09	**Qtr:** SW
Symbol Type:	POINT	**Meridian:**	M	
Radius:	80 meters	**Elevation:**	18 ft	

Location: WEST SIDE OF VALLEY OAK DRIVE, JUST NORTH OF OAKHURST WAY, NORTH STOCKTON
Location Detail: NEST TREE IS LOCATED IN THE YARD OF 8848 VALLEY OAK DRIVE.
Ecological: NEST TREE IS A 50' EXOTIC PINE; SURROUNDED BY RESIDENTIAL ON ALL SIDES.
Threat:
General: 1 FLEDGLING OBSERVED SITTING IN THE NEST ON 24 JUL 2000.
Owner/Manager: PVT

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 1236 **Map Index:** 51966 **EO Index:** 51966

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2000-07-29
Site: 2000-07-29

Record Last Updated: 2003-08-04

Quad Summary: Lodi South (3812113/479D)
County Summary: San Joaquin

Lat/Long: 38.05535º / -121.35652º
UTM: Zone-10 N4213231 E644188
Mapping Precision: SPECIFIC
Symbol Type: POINT
Radius: 80 meters

Township: 02N
Range: 06E
Section: 06 **Qtr:** NE
Meridian: M
Elevation: 11 ft

Location: NORTH END OF PLEASANT VALLEY CIRCLE, JUST WEST OF PLEASANT VALLEY COURT, STOCKTON
Location Detail: NEST TREE LOCATED AT 10619 PLEASANT VALLEY CIRCLE.
Ecological: NEST TREE IS A 60' VALLEY OAK; SURROUNDED BY RESIDENTIAL/URBAN.
Threat:
General: 1 FLEDGLING OBSERVED SOARING WITH AN ADULT ABOVE THE NEST TREE ON 29 JUL 2000.
Owner/Manager: PVT

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 1237 **Map Index:** 51967 **EO Index:** 51967

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2000-XX-XX
Site: 2000-07-29

Record Last Updated: 2003-08-04

Quad Summary: Lodi South (3812113/479D)

County Summary: San Joaquin

Lat/Long: 38.05721º / -121.30745º
UTM: Zone-10 N4213515 E648490
Mapping Precision: SPECIFIC
Symbol Type: POINT
Radius: 80 meters

Township: 02N
Range: 06E
Section: 03 **Qtr:** NW
Meridian: M
Elevation: 27 ft

Location: SOUTH SIDE OF EIGHT-MILE ROAD, 0.15 MILE EAST OF LOWER SACRAMENTO ROAD, NORTH STOCKTON.

Location Detail:

Ecological: NEST TREE IS AN EXOTIC PINE; SURROUNDED BY ROW CROPS IN ALL DIRECTIONS, WITH SOME RESIDENTIAL TO THE SE.

Threat:

General: NEST WAS OBSERVED ACTIVE (INCUBATING, FEEDING CHICK) EARLY IN THE 2000 NEST SEASON; BY 29 JUL 2000, YOUNG HAD FLEDGED.

Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 1637 **Map Index:** 64698 **EO Index:** 64777

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2002-07-21
Site: 2002-07-21

Record Last Updated: 2006-05-17

Quad Summary: Lodi South (3812113/479D)

County Summary: San Joaquin

Lat/Long: 38.09918º / -121.37200º
UTM: Zone-10 N4218071 E642745
Mapping Precision: SPECIFIC
Symbol Type: POINT
Radius: 80 meters

Township: 03N
Range: 05E
Section: 24 **Qtr:** NE
Meridian: M
Elevation: 15 ft

Location: 0.1 MILE NW OF THE INTERSECTION OF RAY ROAD AND TREDWAY ROAD, 5 MILES SW OF LODI.

Location Detail:

Ecological: NEST TREE WAS A WILLOW; SURROUNDED BY ORCHARD/VINEYARD TO THE SE, GRAZING LAND TO THE NW, AND ROW CROPS TO THE NE AND SW.

Threat:

General: ACTIVE NEST SITE IN 2002; NEST FIRST OBSERVED ON 31 MAY, WITH 2 DOWNY CHICKS AND 1 ADULT OBSERVED ON 11 JUN, AND 1 JUVENILE/1ADULT OBSERVED ON 21 JUL 2002.

Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 1638 **Map Index:** 64699 **EO Index:** 64778

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2002-07-21
Site: 2002-07-21

Record Last Updated: 2006-05-17

Quad Summary: Lodi South (3812113/479D)

County Summary: San Joaquin

Lat/Long: 38.10244º / -121.35187º
UTM: Zone-10 N4218464 E644504
Mapping Precision: SPECIFIC
Symbol Type: POINT
Radius: 80 meters

Township: 03N
Range: 06E
Section: 17 **Qtr:** SW
Meridian: M
Elevation: 22 ft

Location: EAST SIDE OF DE VRIES ROAD, <0.1 MILE NORTH OF THE DE VRIES ROAD/HARNEY ROAD INTERSECTION, ~ 4MILES SW OF LODI.

Location Detail:

Ecological: NEST TREE WAS A VALLEY OAK; SURROUNDED BY FALLOW LAND TO THE SW, RESIDENTIAL TO THE NE, AND ROW CROPS TO THE SE AND NW.

Threat:

General: ACTIVE NEST SITE IN 2002; PROBABLE NEST FIRST OBSERVED ON 31 MAY, WITH 2 FEATHERED CHICKS OBSERVED ON 21 JUL 2002.

Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 1644 **Map Index:** 65390 **EO Index:** 65469

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2002-07-21
Site: 2002-07-21

Record Last Updated: 2006-07-26

Quad Summary: Lodi South (3812113/479D)

County Summary: San Joaquin

Lat/Long: 38.08773º / -121.35219º
UTM: Zone-10 N4216831 E644504
Mapping Precision: SPECIFIC
Symbol Type: POINT
Radius: 80 meters

Township: 03N
Range: 06E
Section: 19 **Qtr:** SE
Meridian: M
Elevation: 17 ft

Location: WEST SIDE OF DE VRIES ROAD, 0.06 MILE NORTH OF THE ARMSTRONG ROAD JUNCTION, 5 MILES SW OF LODI

Location Detail:

Ecological: NEST TREE WAS A WILLOW.; SURROUNDED BY ROW CROPS TO THE NW AND SW, AND ORCHARD/VINEYARD TO THE NE AND SE.

Threat:

General: 1 ADULT OBSERVED PERCHED ON PHILLIPS WINERY SIGN, AND THE SECOND ADULT FLEW INTO THE NEST, ON 31 MAY 2002. 2 FEATHERED CHICKS, ALONG WITH 1 ADULT, WERE PRESENT ON 21 JUL 2002.

Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 1648 **Map Index:** 65503 **EO Index:** 65582

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2002-07-21
Site: 2002-07-21
Record Last Updated: 2006-07-31

Quad Summary: Lodi South (3812113/479D)
County Summary: San Joaquin

Lat/Long: 38.10428º / -121.36285º
UTM: Zone-10 N4218651 E643537
Mapping Precision: SPECIFIC
Symbol Type: POINT
Radius: 80 meters

Township: 03N
Range: 06E
Section: 18 **Qtr:** SW
Meridian: M
Elevation: 18 ft

Location: WEST SIDE OF NEELY ROAD, 0.2 MILE SOUTH OF KINGDON ROAD, WEST OF LODI.
Location Detail:
Ecological: NEST TREE WAS A WALNUT. SURROUNDED BY RESIDENTIAL TO THE NE, ORCHARD VINEYARD TO THE SE AND SW, AND GRASSLAND TO THE NW.
Threat:
General: NEST-BUILDING OBSERVED ON 16 APR; ADULTS PRESENT ON 31 MAY, 11 JUN, AND 21 JUL 2002, BUT NO YOUNG EVER SEEN.
Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 1650 **Map Index:** 65577 **EO Index:** 65656

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2003-07-03
Site: 2003-07-03

Record Last Updated: 2006-08-02

Quad Summary: Lodi South (3812113/479D)

County Summary: San Joaquin

Lat/Long: 38.07742º / -121.26859º
UTM: Zone-10 N4215820 E651858
Mapping Precision: SPECIFIC
Symbol Type: POINT
Radius: 80 meters

Township: 03N
Range: 06E
Section: 25 **Qtr:** SE
Meridian: M
Elevation: 41 ft

Location: EAST SIDE OF MICKE GROVE ROAD, JUST ACROSS THE ROAD FROM THE SOUTH ENTRANCE TO MICKE GROVE PARK, LODI.

Location Detail:

Ecological: NEST TREE WAS A VALLEY OAK; SURROUNDED BY ORCHARD/VINEYARD TO THE NE AND SE, AND RESIDENTIAL TO THE NW AND SW.

Threat:

General: NEST WITH 2 DOWNY YOUNG OBSERVED ON 29 JUN 2003.

Owner/Manager: UNKNOWN

Lepidurus packardi

vernal pool tadpole shrimp

Element Code: ICBRA10010

Status	NDDB Element Ranks	Other Lists
Federal: Endangered	**Global:** G3	**CDFG Status:**
State: None	**State:** S2S3	

Habitat Associations

General: INHABITS VERNAL POOLS AND SWALES IN THE SACRAMENTO VALLEY CONTAINING CLEAR TO HIGHLY TURBID WATER.

Micro: POOLS COMMONLY FOUND IN GRASS BOTTOMED SWALES OF UNPLOWED GRASSLANDS. SOME POOLS ARE MUD-BOTTOMED & HIGHLY TURBID.

Occurrence No. 210 **Map Index:** 59181 **EO Index:** 59217

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1990-04-10
Site: 1990-04-10

Record Last Updated: 2005-01-07

Quad Summary: Waterloo (3812112/478C), Lodi South (3812113/479D), Lockeford (3812122/478B), Lodi North (3812123/479A)

County Summary: San Joaquin

Lat/Long: 38.13190º / -121.27793º
UTM: Zone-10 N4221851 E650926
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Radius: 5 mile

Township: 03N
Range: 06E
Section: 01 **Qtr:** XX
Meridian: M
Elevation: 50 ft

Location: LODI.
Location Detail: NO OTHER LOCATION INFORMATION GIVEN.
Ecological:
Threat:
General: 1 INDIVIDUAL COLLECTED.
Owner/Manager: UNKNOWN

Lilaeopsis masonii

Mason's lilaeopsis

Element Code: PDAPI19030

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G3	**CNPS List:** 1B.1
State: Rare	**State:** S3.1	

Habitat Associations

General: FRESHWATER AND BRACKISH MARSHES, RIPARIAN SCRUB.

Micro: TIDAL ZONES, IN MUDDY OR SILTY SOIL FORMED THROUGH RIVER DEPOSITION OR RIVER BANK EROSION. 0-10M.

Occurrence No. 157 **Map Index:** 46367 **EO Index:** 46367

Occ Rank: Poor
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2000-06-22
Site: 2000-06-22

Record Last Updated: 2001-11-01

Quad Summary: Lodi South (3812113/479D)

County Summary: San Joaquin

Lat/Long: 38.00467º / -121.37059º
UTM: Zone-10 N4207585 E643053
Mapping Precision: SPECIFIC
Symbol Type: POLYGON
Area: 15.6 acres

Township: 02N
Range: 05E
Section: 24 **Qtr:** XX
Meridian: M
Elevation: 5 ft

Location: FOURTEENMILE SLOUGH, 0.5-0.75 MILE SOUTH OF CONFLUENCE WITH FIVEMILE SLOUGH, JUST WEST OF LINCOLN VILLAGE AND STOCKTON.

Location Detail: ON EASTERN EDGE OF WRIGHT TRACT, SOUTHEAST OF SEWAGE DISPOSAL PONDS.

Ecological: FOUND ON EDGE OF CHANNEL ISLAND IN MOIST SOIL. IN ROCKY AREA WITH WILLOW SPP.

Threat: POSIBLE DISTURBANCE INCLUDES EROSION ON CHANNEL ISLAND DUE TO WAVE WASH CAUSED BY WIND AND RECREATION.

General: 4 PLANTS OBSERVED IN 2000.

Owner/Manager: UNKNOWN

Lilaeopsis masonii

Mason's lilaeopsis

Element Code: PDAPI19030

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G3	**CNPS List:** 1B.1
State: Rare	**State:** S3.1	

Habitat Associations

General: FRESHWATER AND BRACKISH MARSHES, RIPARIAN SCRUB.

Micro: TIDAL ZONES, IN MUDDY OR SILTY SOIL FORMED THROUGH RIVER DEPOSITION OR RIVER BANK EROSION. 0-10M.

Occurrence No. 166 **Map Index:** 66798 **EO Index:** 66954

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1991-04-12
Site: 1991-04-12

Record Last Updated: 2006-10-20

Quad Summary: Lodi South (3812113/479D), Terminous (3812114/479C)

County Summary: San Joaquin

Lat/Long: 38.01983º / -121.38634º
UTM: Zone-10 N4209244 E641641
Mapping Precision: NON-SPECIFIC
Symbol Type: POLYGON
Area:

Township: 02N
Range: 05E
Section: 13 **Qtr:** XX
Meridian: M
Elevation: 0 ft

Location: SOUTH LEVEE OF SHIMA TRACT, JUST WEST OF STOCKTON.

Location Detail: EXACT LOCATION UNKNOWN. MAPPED BY CNDDB NON-SPECIFICALLY ALONG THE ENTIRE SOUTHERN LEVEE.

Ecological: ON OLD STUMP JUST ABOVE THE WATERLINE.

Threat:

General: ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1991 COLLECTION BY KJELDSEN. NEEDS FIELDWORK.

Owner/Manager: UNKNOWN

Thamnophis gigas

giant garter snake

Element Code: ARADB36150

Status	NDDB Element Ranks	Other Lists
Federal: Threatened	**Global:** G2G3	**CDFG Status:**
State: Threatened	**State:** S2S3	

Habitat Associations

General: PREFERS FRESHWATER MARSH AND LOW GRADIENT STREAMS. HAS ADAPTED TO DRAINAGE CANALS & IRRIGATION DITCHES.

Micro: THIS IS THE MOST AQUATIC OF THE GARTER SNAKES IN CALIFORNIA.

Occurrence No. 53 **Map Index:** 11589 **EO Index:** 27576

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1976-XX-XX
Site: 1976-XX-XX

Record Last Updated: 1995-08-03

Quad Summary: Lodi South (3812113/479D)

County Summary: San Joaquin

Lat/Long: 38.05769º / -121.32550º
UTM: Zone-10 N4213539 E646906
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Radius: 1/5 mile

Township: 02N
Range: 06E
Section: 04 **Qtr:** NW
Meridian: M
Elevation: 18 ft

Location: EIGHT MILE ROAD AT WESTERN PACIFIC RR TRACKS; 3.5 MI W OF HWY 99. (APPROX0.4 MI W OF DAVIS RD).

Location Detail:

Ecological:

Threat:

General:

Owner/Manager: UNKNOWN

Valley Oak Woodland

Element Code: CTT71130CA

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G3	
State: None	**State:** S2.1	

Habitat Associations

General:

Micro:

Occurrence No. 11 **Map Index:** 11524 **EO Index:** 15249

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1976-08-XX
Site: 1976-08-XX
Record Last Updated: 1998-07-31

Quad Summary: Lodi South (3812113/479D)
County Summary: San Joaquin

Lat/Long: 38.05370º / -121.36299º
UTM: Zone-10 N4213038 E643624
Mapping Precision: SPECIFIC
Symbol Type: POLYGON
Area: 275.0 acres

Township: 02N
Range: 06E
Section: 06 **Qtr:** N
Meridian: M
Elevation: 5 ft

Location: B & L OAK GROVE. (E OF I-5, S OF EIGHTMILE RD N OF STOCKTON).
Location Detail: BOUNDARY FROM CNACC.
Ecological: SCATTERED QUERCUS LOBATA W/AN OCCASIONAL DENSE STAND. SEEDLINGS BEING ESTABLISHED. PRIMARY EXOTIC UNDERSTORY W/SOME STIPA.
Threat: HEAVILY GRAZED IN PAST.
General: THIS WAS OCC #011 OF CTT71130CA.
Owner/Manager: DPR

Appendix D: Geotechnical Report

GEOLOGIC / SEISMIC HAZARD INVESTIGATION

SOUTH HARNEY LANE ANNEXATION

SOUTHWEST CORNER OF HARNEY LANE AND WEST LANE

LODI, CALIFORNIA

REPORT PREPARED FOR:

FF LP
&
MICHAEL CAROUBA

OUR PROJECT NUMBER: LES080586

DECEMBER 8, 2008

Daniel E. Kramer, Staff Geologist
B.Sc. Geology

David Welch, Msc, Principal Geologist
CEG-2151, CHG-653, PGP-1049

PROFESSIONAL GEOLOGIST
DAVID J. WELCH
NO. 2151
CERTIFIED
ENGINEERING
GEOLOGIST
STATE OF CALIFORNIA

This document was prepared for use only by the client, only for the purposes stated, and within a reasonable time from issuance. Non-commercial, educational, and scientific use of this report by regulatory agencies is regarded as a "fair use" and not a violation of copyright. Regulatory agencies may make additional copies of this document for internal use. Copies may also be made available to the public as required by law. The reprint must acknowledge the copyright and indicate that permission to reprint has been received.

902 Industrial Way • Lodi, CA 95240 • 209.367.3701 • Fax 209.369.4228

©2008 Neil O. Anderson & Associates, Inc

GEOLOGIC / SEISMIC HAZARD INVESTIGATION
SOUTH HARNEY LANE ANNEXATION

TABLE OF CONTENTS

1.0 INTRODUCTION 1
1.1 Purpose and Scope 1
1.2 Site and Project Description 1

2.0 SOIL AND GROUNDWATER 2
2.1 Soil Conditions 2
2.2 Groundwater 3

3.0 GEOLOGY AND GEOLOGIC HAZARDS 3
3.1 Local Geology 3
3.1.1 General 3
3.1.2 Oil and Gas Exploration 4
3.2 Faulting and Seismicity 5
3.2.1 San Francisco Bay Area Faults 6
3.2.2 Foothills Fault System 6
3.2.3 CRCV Boundary 6
3.3 Earthquake Epicenters 7
3.4 Estimated Ground Motion of the Site 8
3.4.1 Estimating Site Specific Ground Motion Using CBC 2007 8
3.4.2 Estimating Ground Motion Using CGS Fault Model 9
3.5 Geologic Hazards 9
3.5.1 Liquefaction Potential 9
3.5.2 Aerial Photograph Analysis 10
3.5.3 Fault Rupture Hazard 10
3.5.4 Earthquake-Induced Landsliding 10
3.5.5 Volcanic Hazards 10
3.5.6 Inundation by Tsunamis and Seiches 12
3.5.7 Flooding 12
3.5.8 Dam Failure Inundation 12
3.5.9 Subsidence 12

4.0 CONCLUSIONS 13

5.0 LIMITATIONS 14

6.0 SELECTED REFERENCES 14

APPENDIX A — Plate Number
Site and Vicinity Map ..... Plate 1
Aerial Photograph ..... Plate 2
Topographic Map ..... Plate 3
Surface Soil Map ..... Plate 4
Groundwater Elevation Map Spring 2008 ..... Plate 5
Geological Map (1:24,000) ..... Plate 6
Gas and Oil Well Location Map ..... Plate 7
Active Fault Map ..... Plate 8

©2008 Neil O. Anderson & Associates, Inc

December 8, 2008

GEOLOGIC / SEISMIC HAZARD INVESTIGATION

SOUTH HARNEY LANE ANNEXATION

SOUTHWEST CORNER OF HARNEY LANE AND WEST LANE

LODI, CALIFORNIA

OUR PROJECT NUMBER: LES080586

1.0 INTRODUCTION

This report presents the findings, conclusions, and recommendations of a seismic and geologic hazard investigation conducted for the South Harney Lane Annexation located at the southeast corner of Harney Lane and West Lane.

This report was prepared for the use of the architect and engineer, to assist in the evaluation and mitigation of earthquake-related hazards, liquefaction, and other geologic hazards which may affect the subject project. This report was prepared in accordance with generally accepted geologic and engineering practices. No warranty is expressed or implied. This report presents the results of our investigation.

1.1 Purpose and Scope

Our office was retained by Michael Carouba of FF LP to prepare a Geologic/Seismic Hazard Report for the proposed project. Our investigation was guided by the California Geological Survey (CGS) Note 48 - Checklist for the Review of Geologic/Seismic Reports for California Public Schools, Hospitals, and Essential Services Buildings. Note 48 is used by the California Geological Survey (CGS) to review the geology , seismology, and geologic hazards evaluated in reports that are prepared under California Code of Regulations (CCR), Title 24, California Building Code (CGS, 2007).

The scope of work performed in this report includes on-site geologic reconnaissance, review of published technical literature, topographic maps, geologic literature, aerial photos, and a review of the safety element chapter of San Joaquin County General Plan (County of San Joaquin, 1993). This investigation addresses potential geologic hazards such as general seismicity, potential surface rupture from faulting, earthquake-induced landsliding, volcanic hazards, inundation by tsunamis and seiches, flooding, inundation by dam failure, and subsidence where applicable.

1.2 Site and Project Description

We understand that the proposed site will encompass approximately 30 acres. The proposed commercial development will include construction of two new streets bordering the south and the west sides of the site as well as road improvements to Harney Lane and West Lane bordered to the north and east, respectively. The development will include approximately 15 acres of major commercial retail at the corner of Harney Lane and West Lane. This

©2008 Neil O. Anderson & Associates, Inc

construction will include 71,100 square feet of major lease space, 27,250 square feet of store lease space and a bank with 5,000 square feet with a combined parking area of 576 stalls. The approximately 15 acres of remaining land will be secondary lease space which will border the south and west sides of the major lease space. This remaining space will consist of office buildings and a restaurant with a combined parking area of 978 stalls.

The major commercial construction will include single story wood frame for the smaller stores and concrete/masonry walls with steel interior framing for the larger stores. The secondary lease space will consist of single, two and three story wood frame buildings with concrete slab on grade floors. We anticipate maximum foundation loads for the major commercial buildings to be moderate. Maximum (dead plus live) loads for perimeter and interior wall loads will be in the range of 2 to 4 kips per linear foot. Maximum (dead plus live) isolated column loads are anticipated to be in the range of 40 to 80 kips. We anticipate maximum foundation loads for the smaller office and store buildings to be light. Maximum (dead plus live) loads for perimeter and interior wall loads will be in the range of 1 to 3 kips per linear foot. Maximum (dead plus live) isolated column loads are anticipated to be in the range of 10 to 40 kips. From our experience with the area, we have estimated that minor grading, less than 3 feet in vertical extent, will be required to grade the site. The buildings will be surrounded by concrete flatwork and landscaping.

Based on aerial imagery and site reconnaissance, at the time of our investigation, the eastern half of the site was covered in row crops such as strawberries and melons. The western half of the site was an existing golf school and driving range. To West Lane borders the eastern edge of the site, Harney Lane borders the northern edge of the site, and dirt access roads border the western and southern site edges. To the west and east of the site are grape vineyards was west lane. A Site and Vicinity Map, Aerial Photograph, and Topographic Map can be found in Appendix A (see Plates 1, 2 and 3). The site coordinates are as follows: latitude; 38.0994° degrees north, longitude; -121.2809° degrees west (Google Earth™, 2008).

Regional topography surrounding the site can be characterized as a large, flat valley which is drained by the San Joaquin River and its tributaries (see Plate 3). The site is situated at an elevation of approximately 40 feet according to the Lodi South Quadrangle, United States Geological Survey 7.5-minute topographic map dated 1976. Nearby drainages in the area consist of South Main Canal, Pixley Slough, and Bear Creek (Topographic Map, Plate 3). The closest surface water to the site is South Main Canal, which is approximately 0.25 miles to the west of the subject property.

2.0 SOIL AND GROUNDWATER

2.1 Soil Conditions

The classification and distribution of soils at the site are presented in the *Online Soil Survey, California Soil Resources Lab*, (NRCS, 2008), shown on Plate 4 (Surface Soil Map). The soil survey indicated soils in the area are derived from mostly Holocene and some Pleistocene marine and non-marine alluvium. The soil map indicates that Tokay Urban Land Complex (257) with 0 to 2 percent slopes exists at the northern quarter of the site, and that Tokay fine sandy

©2008 Neil O. Anderson & Associates, Inc

loam (256) with 0 to 2 percent slopes exists at the southern three quarters of the site. The following list details some of the soil characteristics regarding the two above mentioned soil types:

257— Tokay Urban land Complex
Permeability: 2 to 6 inches per hour
Available Water Capacity: 0.13 to 0.15 inches per inch
Shrink Swell Potential: Low
Drainage: well drained
Parent Material: alluvium

256— Tokay fine sandy loam
Permeability: 2 to 6 inches per hour
Available Water Capacity: 0.13 to 0.15 inches per inch
Shrink Swell Potential: Low
Drainage: well drained
Parent Material: alluvium

A concurrent preliminary geotechnical investigation is being completed by our firm. Please refer to the geotechnical report to find recommendations for the project based on the site specific soil conditions.

2.2 Groundwater

According to the San Joaquin County Internal Groundwater Data Center, Online Groundwater Elevations Spring 2008, groundwater lies at an elevation of approximately -20 to -30 feet below mean sea level (SJC, 2008). This site elevation is approximately 40 feet above mean sea level. Depth to groundwater is estimated to be 60 to 70 feet below ground surface (bgs) based on the most recent groundwater elevation map. A Groundwater elevation map showing groundwater elevation contours is illustrated on Plates 5 (Groundwater Elevation Map Spring, 2008).

Historic lines of equal elevation to groundwater maps were also reviewed for 1998, 1999, 2003, 2004, and 2007. All maps reviewed were consistent, placing groundwater elevation between -30 and -15 feet below mean sea level (55 to 70 bgs). During drilling on our concurrent Geotechnical Investigation no groundwater was encountered in any of the borings performed to a depth of 21.5 feet below ground surface.

3.0 GEOLOGY AND GEOLOGIC HAZARDS

3.1 Local Geology

3.1.1 General

The subject site is located in the center of the northern-middle portion of the Great Valley geomorphic province.

©2008 Neil O. Anderson & Associates, Inc

> *The Great Valley is an alluvial plain about 50 miles wide and 400 miles long in the central part of California. Its northern part is the Sacramento Valley, drained by the Sacramento River, and its southern part is the San Joaquin Valley, drained by the San Joaquin River. The Great Valley is a trough in which sediments have been deposited almost continuously since the Jurassic (about 160 million years ago). Great oil fields have been found in southernmost San Joaquin Valley and along anticlinal uplifts on its southwestern margin* (California Geological Survey, 2002).

The site is located between the Sacramento and San Joaquin Valleys; approximately 20 miles to the east are the foothills of the Sierra Nevada Province. Approximately 30 miles to the west is the coast range province. Tectonic processes involved with the Coast Ranges are a significant source of seismicity, faulting, and folding.

Satellite aerial imagery from Terraserver™ and Google Earth™ were checked for cultural and geologic features. All of the imagery indicates that the site is surrounded by both residential and commercial buildings to the north and open farm fields (Row Crops, Vineyards, and Orchards) to the east, west, and south. To the west (approximately 0.25 miles) of the subject property is an irrigation canal (South Main Canal). Approximately 1.35 miles to the south of the site is small meandering creek (Bear Creek).

Our firm reviewed the Lodi South Quadrangle 1:24,000 Geologic Map (MF-1401, Sheet 13 of 21, Atwater, 1982). The area beneath the subject site classifies as part of the Pleistocene Modesto Formation (Qm) which is made up of dense to loose sand, probably eolian in nature and loose sand and silt that is chiefly fluvial. These sediments are alluvial fan deposits that were derived from glaciated drainage basins (Plate 6, Geologic Map).

3.1.2 Oil and Gas Exploration

Oil and gas well location maps were reviewed to locate any wells or test holes on the property or nearby. Well information can be used to evaluate the subsurface geology and estimate potential hazards associated with well operations, subsidence, or related environmental issues.

According to the map *Oil, Gas, and Geothermal Fields in California*, the site is not located within a "sedimentary basin with oil, gas, or geothermal production." Oil and gas fields are depicted within the general area of Lodi (California Division of Oil, Gas, and Geothermal Resources, 2006). However, no gas or oil is being actively extracted in the near vicinity of the site (approximately less than 4.5 miles).

The site lies approximately 2.5 miles northeast of the Lodi Airport Gas trap/field, approximately 3.5 miles northeast of the Harte Gas trap/field, and approximately 4.0 miles to the southwest of the Southeast Lodi Gas trap/field. There has been a significant amount of gas exploration and limited production activity throughout the general area since the early mid 1900's. Although

©2008 Neil O. Anderson & Associates, Inc

current exploration and production activities are ongoing, the above mentioned traps/fields are abandoned with the exception of the Southeast Lodi Gas trap/field which has one completed, but idle, gas well (Owner: Crimson Resource Management Group, Well Name: "Niles" 1) which is located approximately 4.5 miles to the northeast of the site.

The map does indicate one (1) dry hole within the immediate area (1 miles or less) of the subject property, which has been abandoned and plugged. The Great Basins Petroleum Company has one well ("Phillips-Batch" 1-14) which is approximately 0.25 miles northwest of the subject site (Plate 7, Gas and Oil Well Location Map). There appears to be no risks to the site associated with oil and gas exploration and development in the area.

3.2 Faulting and Seismicity

The site does not lie within an Alquist-Priolo special studies zone. Nineteen (19) significant faults capable of generating earthquake induced ground motion at the site are located within 62 miles (100 kilometers) of the subject site (see Plate 8, Active Fault Map). A list of these faults is presented in Table 1. These and other faults located throughout California are studied as part of an on-going effort to create a probabilistic model to estimate earthquake induced ground motion for the State of California (CDMG, 1996 and 2002).

Table 1
Significant Faults Located within 62 miles of Cosumnes River College, California (CDMG, 1996, updated 2002)

Significant Earthquake Fault	Geometry	Slip Rate (mm/yr)	Mmax	Dist (Mi)
FOOTHILLS FAULT SYSTEM	n-rl-o	0.05	6.5	24.3
GREAT VALLEY 6	r	1.5	6.5	25.0
GREAT VALLEY 5	r	1.5	6.6	25.4
GREAT VALLEY 7	r	1.5	6.7	28.3
GREENVILLE	rl-ss	2.0	6.6	33.6
GREAT VALLEY 4	r	1.5	6.9	35.8
CONCORD – GREEN VALLEY	rl-ss	5.0	6.2	40.4
CALAVERAS	rl-ss	15.0	6.2	44.0
GREAT VALLEY 8	r	1.5	6.6	46.1
HAYWARD (Total Length)	rl-ss	9.0	6.4	52.1
HAYWARD (South)	rl-ss	9.0	6.7	52.1
WEST NAPA	rl-ss	1.0	6.5	52.4
HAYWARD (North)	rl-ss	9.0	6.4	52.6
CALAVERAS	rl-ss	15.0	6.2	53.4
HAYWARD (SE Extension)	rl-ss	9.0	6.7	54.8

©2008 Neil O. Anderson & Associates, Inc

Significant Earthquake Fault	Geometry	Slip Rate (mm/yr)	Mmax	Dist (Mi)
HUNTING CREEK - BERRYESSA	rl-ss	6.0	7.1	55.2
GREAT VALLEY 3	r	1.5	6.9	55.4
ORTIGALITA	rl-ss	1.0	7.1	56.4
RODGERS CREEK	rl-ss	9.0	7.0	57.4

Geometry- (ss) strike slip, (r) reverse, (n) normal, (rl) right lateral, (ll), left lateral, (o) oblique. Dist (Mi) is epicentral distance.

3.2.1 San Francisco Bay Area Faults

The San Andreas Fault Zone is located about 70 miles to the west of the site. Two (2) of the biggest earthquakes in California occurred along the San Andreas Fault, the 1857 Fort Tejon earthquake of Mw 7.92 and the 1906 San Francisco earthquake of Mw 7.68.

The San Andreas Fault Zone is considered the active boundary between the North American tectonic plate to the east, the Pacific plate to the west, and the Juan de Fuca plate to the north. The San Andreas Fault is also regarded as the primary expression of movement along this boundary. Other parallel and related faults in the California Coast Ranges are considered lesser expressions of tectonic stresses that occur along the plate boundary. These faults make up the majority of the active faults in the Central California area.

3.2.2 Foothills Fault System

The edge of the Foothills Fault System, which roughly defines the Central Valley and the Sierra Nevada margin, lies about 24.3 miles east of the subject site. The zone is regarded as an aerial earthquake source that is based on poorly constrained Quaternary slip rates across the Bear Mountain and Melones Fault Zones (CDMG, 1996; Woodward-Clyde Consultants, 1978). Wakabayashi and Smith (1994) describe the Foothills Fault Zone as lacking evidence of active crustal shorting and note that deformation along the eastside of the Central Valley is extensional or transtensional. This fault zone has much less activity relative to the Central Coast area strike-slip faults and the CRCV boundary located along the west side of the Sacramento and San Joaquin Valley.

3.2.3 CRCV Boundary

The Coast Range-Central Valley (CRCV) geomorphic boundary (margin) is located approximately 25.0 miles west of the site. The CRCV boundary is underlain by a 310 mi (500 km) long seismically active fold and thrust belt (Wakabayashi and Smith, 1994). Wakabayashi and Smith (1994) point out that, for communities located along the western margin of the Central Valley, the CRCV, because of its proximity and the comparatively long distance to major strike-slip faults, may represent the most significant seismic hazard for the area.

Numerous earthquakes have occurred along the CRCV fold and thrust zone including the 1892 Vacaville-Winters earthquakes of magnitude (Mw) 6.8. The most recent large earthquake

©2008 Neil O. Anderson & Associates, Inc

occurring along the CRCV fold and thrust zone was the 1983 Coalinga earthquake, magnitude (Mw) 6.5, which caused considerable damage in the Coalinga area. A summary of large damaging earthquakes thought to be associated with the CRCV fold and thrust zone is presented in Table 2.

Table 2
Historic Large Earthquakes Associated with the CRCV Boundary
(Wakabayashi and Smith, 1994)

Year	Location and Comments	Mw (Moment Magnitude)
1892	Vacaville-Winters mainshock	6.8
1892	Vacaville-Winters aftershock	6.4
1892	Vacaville-Winters aftershock	5.8
1889	Antioch	6.3
1866	Near Patterson	5.9
1881	Near San Luis Reservoir	6.4
1905	Near Firebaugh	6.1
1885	Near Mendota	6.5
1983	Coalinga mainshock	6.5
1983	Coalinga aftershock	6.0
1985	Kettleman Hills (north dome)	6.1

The subject site will have potential for ground shaking because of its close distance to the CRCV seismically active fold and thrust belt and the nearby San Francisco Bay area faults. Wakabayashi and Smith (1994) point out that although eleven (11) magnitudes greater than or equal to six (6) have taken place on the CRCV boundary (Great Valley Fault), approximately 65% of the fault system has not yielded earthquakes of this size in historic time. Since Wakabayashi and Smith (1994) described the CRCV fold and thrust belt, it has since been sectioned into distinct fault segments by the California Geological Survey (CGS) and the United States Geological Survey (USGS). The general name of the fault is Great Valley (GV) followed by the segment number (CDMG, 1996). Earthquakes potential occurring on the closest segments (GV-4 and GV-5) to the site have a maximum moment magnitude (Mw) intensity of 6.6 and 6.5.

3.3 Earthquake Epicenters

The ANSS (Advanced National Seismic System, http://www.ncedc.org/cnss) earthquake catalog was searched for earthquakes of local magnitude greater than 4.0 occurring since 1895 for a radius of (75 km) surrounding the site with the coordinates 38.0994° degrees north (latitude) and -121.2809° degrees west (longitude). Table 3 presents a tabular listing of earthquake epicenters close to the site. The earthquake epicenters are sorted by distance from the site.

©2008 Neil O. Anderson & Associates, Inc

Table 3
Earthquakes of Magnitude 4.0+ Occurring Within (75km) of the Site

Site: -121.2809 38.0994						
Date	**Longitude**	**Latitude**	**Magnitude**	**Depth**	**Distance**	**Bearing**
2/15/1992	-121.6093	37.6785	4	16.55	51.9 km (32.2 mi)	S32W
10/22/1987	-121.7445	37.7905	4.4	10.41	57.9 km (36.0 mi)	S50W
3/10/1991	-121.7545	37.7073	4	18.85	62.6 km (38.9 mi)	S44W
6/22/1989	-121.8563	38.0588	4.3	20.02	63.5 km (39.4 mi)	S85W
12/11/1986	-121.67	37.5598	4.1	2.74	64.1 km (39.8 mi)	S30W
4/28/1990	-121.9743	37.876	4.4	6.96	78.9 km (49.0 mi)	S68W
2/2/2003	-121.9373	37.7425	4	15.84	78.9 km (49.0 mi)	S56W
2/2/2003	-121.9423	37.7482	4	16.21	79.2 km (49.2 mi)	S56W
10/11/1986	-121.966	37.8212	4.2	9.36	79.4 km (49.3 mi)	S63W
4/7/1990	-121.9817	37.873	4.4	8.35	79.7 km (49.5 mi)	S68W
4/28/1990	-121.987	37.8707	4.2	8.04	80.4 km (49.9 mi)	S68W

The search of the earthquake catalog indicated that eleven (11) earthquakes have occurred within approximately 75 km of the site with a magnitude greater than or equal to 4.0. The closest earthquake epicenter to the site occurred about 51.9 km northwest of the site in 1978 with a local magnitude of 4.0.

3.4 Estimated Ground Motion of the Site

3.4.1 Estimating Site Specific Ground Motion Using CBC 2007

A geologic map of the area was reviewed and indicated the surface soils are described as Pleistocene Age arkosic alluvium from the upper member of the Modesto Formation (Qm_2). The closest active fault with a Maximum Magnitude of 6.6 with a slip rate of 2 millimeters per year is the Greenville fault zone located a distance of 54 kilometers from the site. A significantly more active fault with a Maximum Magnitude of 6.7 and a slip rate of 9 millimeters per year is the Hayward fault located at a distance of 84 kilometers.

Estimating the earthquake-induced ground motion for a site can be accomplished several different ways. The California Division of Mines and Geology Note 48 calls for a ground motion determination using 2007 California Building Code (CBC) seismic design parameters. From the geotechnical information gathered during our concurrent geotechnical report, we have assumed a typical soil type D for the analysis.

©2008 Neil O. Anderson & Associates, Inc

The new 2007 California Building Code adopted January 1, 2008 references the 2006 International Building Code and the ASCE 7-05 standard in lieu of the Uniform Building Code previously utilized by the State of California. The following is a table of the 2007 California Building Code Soil Parameters[1] which may be used for seismic design of structures at the subject site:

Table 4
Seismic Design Parameters

2007 California Building Code Seismic Design Parameters	
Site Class	D
Mapped Spectral Acceleration Value of Rock (Short Period), S_S	0.733g
Mapped Spectral Acceleration Value of Rock (1-Second Period), S_1	0.266g
Site (Amplification) Coefficient, F_a	1.214
Site (Amplification) Coefficient, F_v	1.869
Maximum Considered Earthquake/Site Modified (MCE) Spectral Response Acceleration Value (Short Period), S_{MS}	0.890g
Maximum Considered Earthquake/Site Modified (MCE) Spectral Response Acceleration Value (1-Second Period), S_{M1}	0.496g
Design Spectral Acceleration Value (Short Period), S_{DS}	0.593g
Design Spectral Acceleration Value (1-Second Period), S_{D1}	0.331g

A site latitude and longitude of 38.09943° and -121.28093° were utilized in conjunction with the tools provided by United States Geologic Survey web site. In accordance with 2007 California Building Code, Section 1802.2.7.2, a ground acceleration of 0.237g (S_{DS}/2.5) should be anticipated. A liquefaction evaluation was outside the scope of our services; however due to the depth of groundwater in the area, greater than 50 feet, the age of the on-site soils, and our experience of previous work in the Lodi area, the probability of liquefaction induced surface distress is considered very low.

3.4.2 Estimating Ground Motion Using CGS Fault Model

Estimation for ground motion can be also be found on the Probabilistic Seismic Hazards Mapping Ground Motion page of CGS's California fault and soil model using probabilistic methods. By entering the latitude and longitude, the CGS model has estimated a ground motion for the site of 0.227 g using alluvium. This is the design basis ground motion; a 10 percent probability of exceeding the ground motion in a given 50 year exposure period (CGS, 2007).

3.5 Geologic Hazards

3.5.1 Liquefaction Potential

A review of historic ground water level indicates that groundwater has fluctuated between 55 to 70 feet below ground surface between the years of 1998 and 2008. Due to the depth to

[1] USGS Earthquake Ground Motion Parameters Version: 5.0.7 – 6/18/07

©2008 Neil O. Anderson & Associates, Inc

groundwater, the age of the on-site soils, and our experience of previous work in the Lodi area, the probability of liquefaction induced surface distress is considered low.

Liquefaction is a loss of strength in soil when a cyclic stress, such as that caused by an earthquake, is subjected to typical soils, such as loose saturated sands and silts. A cyclic stress subjected to these soils causes them to densify, rapidly elevating the pore pressures, which causes the soil to act as a liquid. Factors that may affect the likelihood of liquefaction include the age of soils, density of soils, porosity, grain size, depth to groundwater, and potential ground acceleration from a seismic event.

3.5.2 Aerial Photograph Analysis

Aerial photographs were viewed from online data bases (Terraserver, 2008, Google, 2008, and USGS, 2008) for ground surface rupture and large scale surface features that would help to indicate obvious geomorphic signs of geologic hazard pertinence. Interpretation of the photographs (Scale 1:24,000) indicates that no linear feature, indicative of surface fault rupture, was obvious. The photographs did not indicate that any recognizable hazards at the site.

3.5.3 Fault Rupture Hazard

The site does not lie within an Alquist-Priolo special studies zone, and there are no known mapped surface faults on or adjacent to the Site. The Foothills Fault system exists to the east of the site. Blind thrust faults of the Great Valley system, as well as strike/slip faults of the Bay Area Fault system, exist to the west of the site (Active Fault Map, Plate 8). The Great Valley faults are buried relatively deeply at a low angle, approximately ½ mile deep. Historically, blind thrust faults do not cause surface rupture at the site due to their low angle geometry. However, considerable shaking may occur due to the proximity of the fault to the site. Due to the large distance from any of the active faults within the greater area, surface rupture faulting is not expected at the site.

3.5.4 Earthquake-Induced Landsliding

This site is not considered susceptible to landsliding because of its low topographic relief and lack of hills/mountains in the vicinity of the site.

3.5.5 Volcanic Hazards

Six active volcanic hazard zones have been identified in California. The Clear Lake Volcanic Area is the closest of the sixteen active zones to the subject property. The Clear Lake Volcanic Area is approximately 95 miles northwest of the subject site. The Mono Lake-Bishop Volcanic Area is the next closest, located at approximately 110 miles to the east of the subject site.
The Lassen Volcanic Area is the next closest active zone to the subject site at approximately 155 miles to the north. The Owens River Death Valley Coso Area (ORDVCA) is the next closest, located at approximately 165 miles to the southeast of the subject site.

©2008 Neil O. Anderson & Associates, Inc

The procedures and methods used to evaluate potential volcanic hazards for the site are largely adopted from the work of Miller (1989). Hazards associated with volcanic events are first categorized and characterized into two groups, "Flowage Hazards" and "Tephra Hazards." Flowage hazards include pyroclastic flows, mud flows, directed blasts, and lava flows. Tephra hazards are primarily considered to be ash falls. Historic and geologic information on each of these types of events has been accumulated for volcanic centers around the world. Hazards associated with volcanic events can then be further categorized based on magnitude of an event and whether it is precedented or unprecedented for a particular volcanic area. Precedented events are associated with previous eruptions at the specific volcanic hazard zone. Unprecedented events refer to large cataclysmic events which are very infrequent, geologically.

Risk associated with potential volcanic hazards can then be evaluated as a function of distance from the volcanic center based on historic and geologic information defined in terms of four categories, (1) precedented combined flowage hazards, (2) unprecedented combined flowage hazards, (3) precedented tephra hazards, and (4) unprecedented tephra hazards.

Due to the extreme distance from the Clear Lake Volcanic area, and the type of eruptions likely produced, it is unlikely that any of the above mentioned hazards would affect the site. A more likely source of hazard would come from either the Mono Lake-Bishop Area or Lassen Volcanic Area.

For precedented events associated with either the Owens Lake-Bishop Volcanic Area or the Lassen Volcanic Area, combined flowage hazards could be anticipated to extend 15 km (9+ miles) from the volcanic center (Miller, 1989). For unprecedented events, flowage hazards are documented to reach distances of 25 to 31 miles from the center of the volcanic zone (Miller, 1989). For comparative purposes, the pyroclastic flow associated with the 1980 Mt. Saint Helens eruption reached as far as 17 miles from the volcanic center. The 1980 Mt. Saint Helens eruption is a medium size eruption involving only 3 km^3 of material. Based on the fact that the Mono Lake-Bishop Volcanic Area is located 110 miles from the subject site, and the Lassen Volcanic Area is located 155 miles from the subject site, the subject property is too far from nearest active volcanic center to be impacted by either a precedented or unprecedented volcanic flowage hazards.

At 95 miles from the Clear Lake Volcanic Area (or the Mono Lake-Bishop Volcanic Area at 110 miles from the site) the subject property is close enough to be affected by either a precedented or unprecedented tephra (ash fall) event. For a precedented event, less than 2 inches (5 centimeters or less) are predicted at 125 miles from the Mono Lake-Bishop Volcanic Area (CDMG, 1973). For an unprecedented event, anywhere between 10 cm to 80 cm of ash could potentially accumulate depending on the size of the event. However, the likelihood of tephra impact is a function of prevailing wind direction and strength, and the wind blows toward the southwest (from the Clear Lake/Lassen areas toward Sacramento and the subject site) only 2% of the time (Miller, 1989). Consequently, only 2% of the precedented or unprecedented events would be expected to deposit ash at the subject property. There is a low risk of volcanic hazards affecting the property because the frequency of eruptions is rare.

©2008 Neil O. Anderson & Associates, Inc

3.5.6 Inundation by Tsunamis and Seiches

Tsunamis, often incorrectly called tidal waves, are long period waves of water usually caused by underwater seismic disturbances, volcanic eruptions, or submerged landslides (Ritter and Dupre, 1972). There is no potential for tsunamis due to the large distance from the Pacific Ocean and the San Francisco Bay shore line. Therefore, tsunamis are not a potential hazard.
A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin that varies in period. Seiches are often caused by tidal currents, landslides, earthquakes, and wind.

The San Joaquin County General Plan (1992) indicates that there are three major dams and two major dikes, that should failure occur could affect the subject site. These dams are as follows: the Comanche Dam, Salt Springs Dam, and Pardee Dam, and the North and South Comanche Dikes. If a seiche were to occur from seismic activity or other process, water may overtop the dam, possibly causing damage to the dam structure and potential flooding in the local area. Due to the distance that the subject site is from this dam, a seiche from this reservoir could affect the subject site.

3.5.7 Flooding

The Sacramento County General Plan indicates that major floods have occurred in the County. The General Plan states that with the construction of the Dams flooding is now limited, which in turn, has had a beneficial effect on the area.

The Sacramento County General Plan indicates that the subject site is not contained in a flood-prone area.

A review of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), (ID#0602990285C, Date: 04/02/2002) indicated that the site is located in Zone B which is described as, "Areas not within the 100-year flood plain, but within the 500 year flood plain."

3.5.8 Dam Failure Inundation

The San Joaquin County General Plan (1992) indicates that there are three major dams and two major dikes, that should failure occur could affect the subject site. These dams are as follows: the Comanche Dam, Salt Springs Dam, and Pardee Dam, and the North and South Comanche Dikes. In the event of a dam failure, water would reach Lodi in approximately 45 minutes after dam failure. Residences would be notified by the California Emergency Broadcast System.

3.5.9 Subsidence

Subsidence of the land surface, as a result of the activities of man, has been occurring in California for many years. Subsidence can be divided, on the basis of causative mechanisms, into four types: groundwater withdrawal subsidence, hydrocompaction subsidence, oil and gas withdrawal subsidence, and peat oxidation subsidence (CDMG, 1973).

©2008 Neil O. Anderson & Associates, Inc

California Division of Mines and Geology Bulletin 198 (CDMG, 1973), indicates that the subject site could have global subsidence due to the withdrawal of groundwater in the area. This type of subsidence has the potential to cause damage to water wells (shearing) and limited damage to lengthy surface structures such as canals and pipelines (slight elevation changes).

4.0 CONCLUSIONS

Based on the information presented in this investigation, the subject site appears to be suitable for construction provided our recommendations are followed. A brief summary of the results is presented below:

1. The site does not lie within an Alquist-Priolo special studies zone. There are no known active surface faults located near the project site. Blind thrust faults of the Great Valley Fault System may exist as close as 25 miles to the west, while right lateral strike slip of the Greenville Fault may exist as close as 33.6 miles to the west, and right lateral strike slip of the Concord - Green Valley Fault may exist as close as 40.4 mi to the west. These faults are seismically active and are expected to cause ground shaking in the future from earthquakes.

2. Based on relatively large depth to groundwater (55 to 70 feet below ground surface) and the dense soils at the site, the chance of settlement due to liquefaction remains low during an earthquake.

3. The subject site and the site are not located within an active gas field. No known active oil or gas test wells are within 4.5 miles of the site.

4. The site is not considered susceptible to landsliding because of the low topographic relief.

5. Due to the location, the site is not susceptible to direct volcanic hazards.

6. The site is not susceptible to tsunamis or seiches.

7. The site is within the inundation zones for dam failure of the Comanche, Salt Springs, Pardee Dams and the North and South Comanche Dikes. To minimize the risk of inundation to occupants at the site an evacuation plan could be designed and administered. Dam failures are often preceded by signs which would allow time for an evacuation.

8. The site is located within not located within a special flood hazard area or an area of 100 year flood.

9. The site is located within a region of potential ground subsidence. Global subsidence in this area has occurred due to the withdrawal of groundwater. This type of subsidence has the potential to cause damage to water wells (shearing)

©2008 Neil O. Anderson & Associates, Inc

and limited damage to lengthy surface structures such as canals and pipelines (slight elevation changes) (CDMG, 1973).

5.0 LIMITATIONS

Our professional services were performed, our findings obtained, and our recommendations proposed in accordance with generally accepted geologic and engineering principles and practices. This warranty is in lieu of all other warranties either expressed or implied. Test findings and statements of professional opinion do not constitute a guarantee or warranty, expressed or implied.

The scope of this investigation did not include any onsite geotechnical investigation, environmental assessment, investigation for the presence or absence of wetlands, hazardous or toxic materials in the soil, surface water, groundwater or air, on or below or around this site.

The recommendations, specifications, and methodologies presented herein were prepared and presented, in accordance to generally accepted practices at the time this document was prepared, and are true and correct to the best of our knowledge. No other warranty is expressed or implied. This document was prepared through the use of information and data provided by others. Neil O. Anderson and Associates in no way warrants the validity or accuracy of any information provided by these sources.

6.0 SELECTED REFERENCES

Advanced National Seismic System, 2008, Composite Earthquake Catalog; Internet address: http://www.ncedc.org/cnss/.

Atwater, B. F., 1982, Geologic Map of the Sacramento-San Joaquin Delta, California, Lodi South Quadrangle, United States Geologic Survey Miscellaneous Field Study MF-1401, Sheet 13 of 21, Scale 1:24,000

California Division of Mines and Geology, 1996, Probabilistic seismic hazard assessment for the State of California: Open-File Report 96-08. Updated 2002 fault tables from the CGS web site at http://www.consrv.ca.gov/cgs/rghm/psha/index.htm.

California Division of Mines and Geology, 1973, Urban geology master plan for California, California Division of Mines and Geology, Bulletin no.198.

California Division of Oil, Gas, and Geothermal Resources, 2007, Oil, Gas, and Geothermal Fields in California, Map W611: DOGGR (ftp://ftp.consrv.ca.gov/pub/ oil/maps/dist5/w611/ Mapw611.pdf).

California Geological Survey, 2002, California Geomorphic Provinces – California Geological Survey Note 36.

©2008 Neil O. Anderson & Associates, Inc

California Geological Survey, 2004, Checklists for the review of geologic/seismic reports for California public schools, hospitals, and essential services buildings: CDMG Note 48, http://www.consrv.ca.gov/cgs/information/publications/cgs_notes/note_48/note_48.pdf.

California Geological Survey, 2007, Probabilistic Seismic Hazards Mapping Ground Motion Page: http://www.consrv.ca.gov/cgs/rghm/pshamap/pshamap.asp

Federal Emergency Management Agency (FEMA), 2008, Flood Insurance Rate Map, San Joaquin County, California, Map ID: 0602990285C.

Google Earth, 2008, Computer Software Mapping Program: http://www.googleearth.com.

International Conference of Building Officials, 2007, California Building Code (CBC).

San Joaquin County, 1992, General Plan, San Joaquin County Year 1992 General Plan: San Joaquin County, Adopted in 1992 by the Board of Supervisors.

San Joaquin County, 2008, San Joaquin County Internal Groundwater Data Center, Online Groundwater Elevations Fall 1998, Spring 1999, Fall 2003, Spring 2004, Fall 2007, and Spring 2008

TerraServer, 2008, TerraServer-USA, http://terraserver-usa.com/

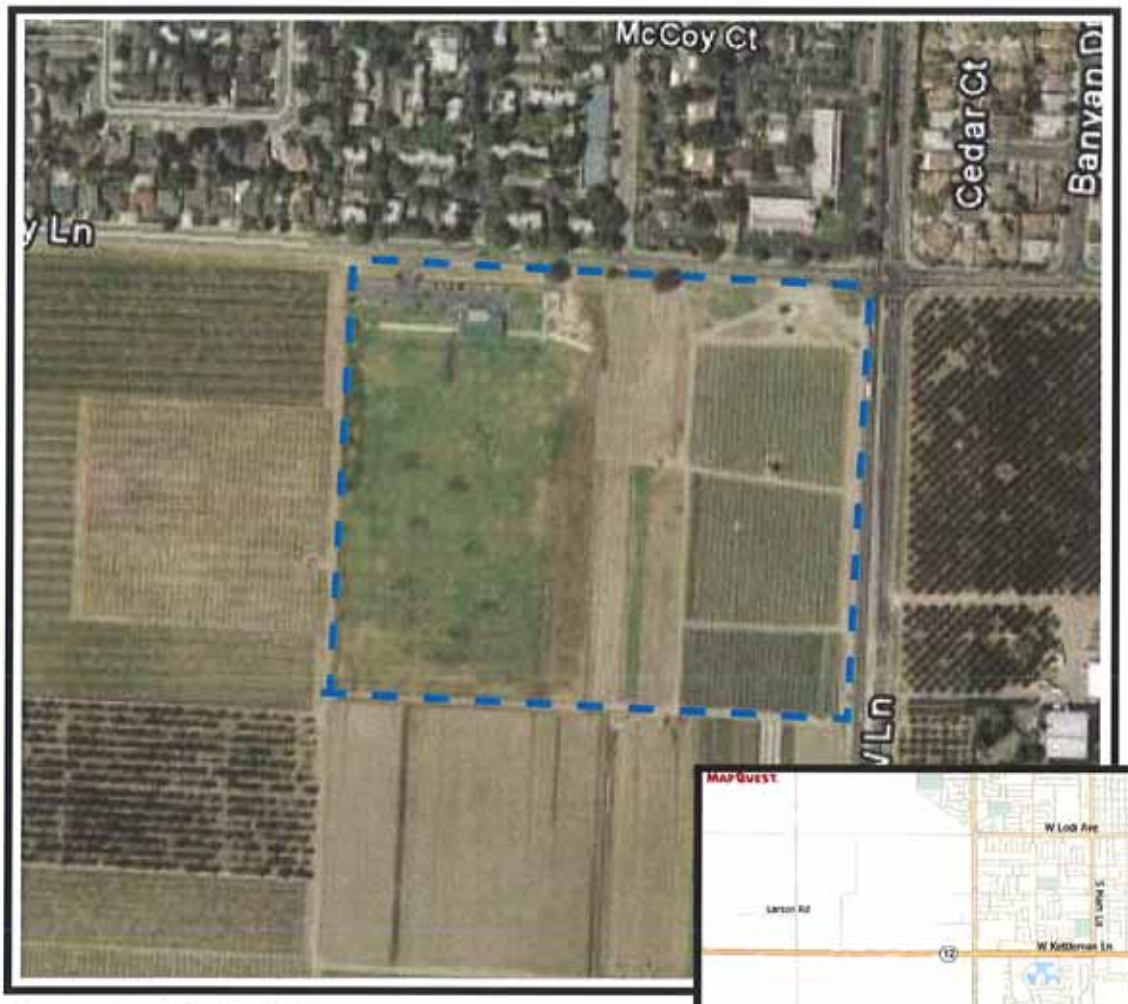
National Resource Conservation Service (NRCS), 2008, Online Soil Survey, California Soil Resources Lab.

USGS, Listing of Potential Volcanic Areas in California: Internet address: (http://vulcan.wr.usgs.gov/ Volcanoes/California/Hazards/ maps/ map_calif_ hazards_ potential.html).

USGS, 1976, Lodi South Quadrangle, 7.5 Minute Series Topographic Map

Wakabayashi, J. and Smith, D.L. 1994, Evaluation of Recurrence Intervals, Characteristic Earthquakes, and Slip Rates Associated with Thrusting along the Coast Range-Central Valley Geomorphic Boundary, California. Bulletin of the Seismological Society of America, Vol. 84, No. 6, pp. 1960-1970.

©2008 Neil O. Anderson & Associates, Inc



Source: GoogleEarth, 2008,
and MapQuest, 2008, www.mapquest.com

Details:

Subject Property Boundaries

N

NEIL O. ANDERSON
AND ASSOCIATES

CORPORATE OFFICE
902 INDUSTRIAL WAY
LODI, CALIFORNIA 95240
PHONE: (209) 367-3701
FAX: (209) 333-8303

SACRAMENTO
MODESTO
FERNLEY

GEOTECHNICAL
ENVIRONMENTAL
GROUNDWATER
INSPECTIONS & TESTING
LABORATORY SERVICES
POOL ENGINEERING
POST TENSION DESIGN
www.noanderson.com

Copyright © 2007 Neil Anderson - All Rights Reserved

Site and Vicinity Map

South Harney Lane Annexation
SW Corner of Harney and West Lane
Lodi, CA 95240

DATE: 12/08/2008
JOB NUMBER: LES080586
SCALE: Not to Scale
DRAWN BY: DK
CHECKED BY: DW
PLATE: 1

Source: Terraserver, 2008, TerraServer-USA, www.terraserver.microsoft.com

NEIL O. ANDERSON
AND ASSOCIATES

CORPORATE OFFICE
902 INDUSTRIAL WAY
LODI, CALIFORNIA 95240
PHONE: (209) 367-3701
FAX: (209) 333-8303

SACRAMENTO
MODESTO
FERNLEY

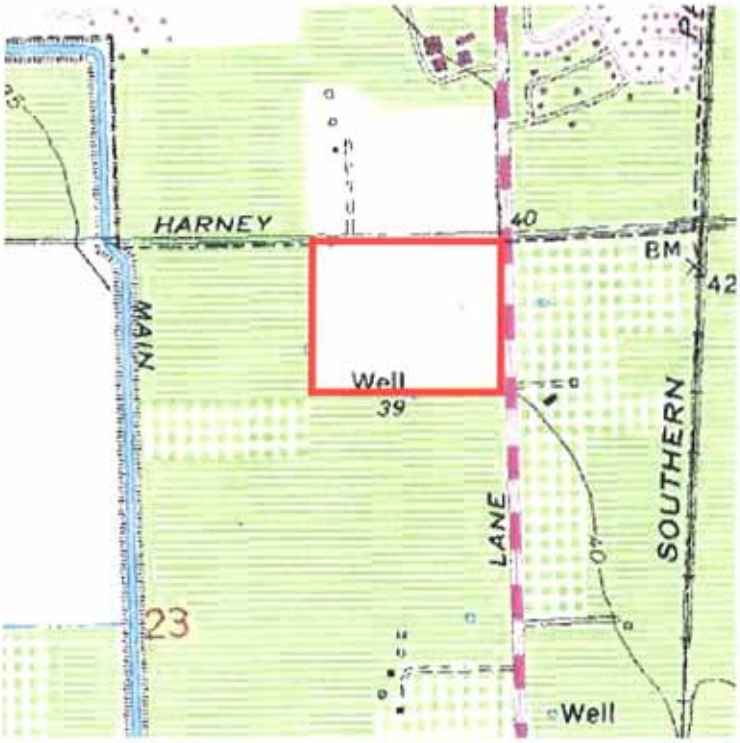
GEOTECHNICAL
ENVIRONMENTAL
GROUNDWATER
INSPECTIONS + TESTING
LABORATORY SERVICES
POOL ENGINEERING
POST TENSION DESIGN
www.noanderson.com

Copyright © 2007 Neil Anderson - All Rights Reserved

Aerial Photograph

South Harney Lane Annexation
SW Corner of Harney and West Lane
Lodi, CA 95240

DATE: 12/08/2008
JOB NUMBER: LES080586
SCALE: 1:24,000
DRAWN BY: DK
CHECKED BY: DW
PLATE: 2



Source: California Geological Survey
(formerly California Division of Mines & Geology),
1976, Topographic Map of the Lodi South Quadrangle;
Scale 1 : 24,000.

Explanation:

- Location of Subject Site
- Contour Interval is 5'
- Units are feet above mean sea level

NEIL O. ANDERSON
AND ASSOCIATES
CORPORATE OFFICE
902 INDUSTRIAL WAY
LODI, CALIFORNIA 95240
PHONE: (209) 367-3701
FAX: (209) 333-8303
SACRAMENTO
MODESTO
FERNLEY
GEOTECHNICAL
ENVIRONMENTAL
GROUNDWATER
INSPECTIONS & TESTING
LABORATORY SERVICES
POOL ENGINEERING
POST TENSION DESIGN
www.noanderson.com
Copyright © 2007 Neil Anderson - All Rights Reserved

Topographic Map

South Harney Lane Annexation
SW Corner of Harney and West Lane
Lodi, CA 95240

DATE: 12/08/2008
JOB NUMBER: LES080586
SCALE: Indicated above.
DRAWN BY: DK
CHECKED BY: DW
PLATE: 3

Source: Google Earth, 2008, and Online Soil Survey, 2008,
http://casoilresource.lawr.ucdavis.edu/drupal/

Explanation:

Line of Surface Soil Unit Separation

Location of Subject Site

256 - Tokay fine sandy loam, 0 to 2 percent slopes

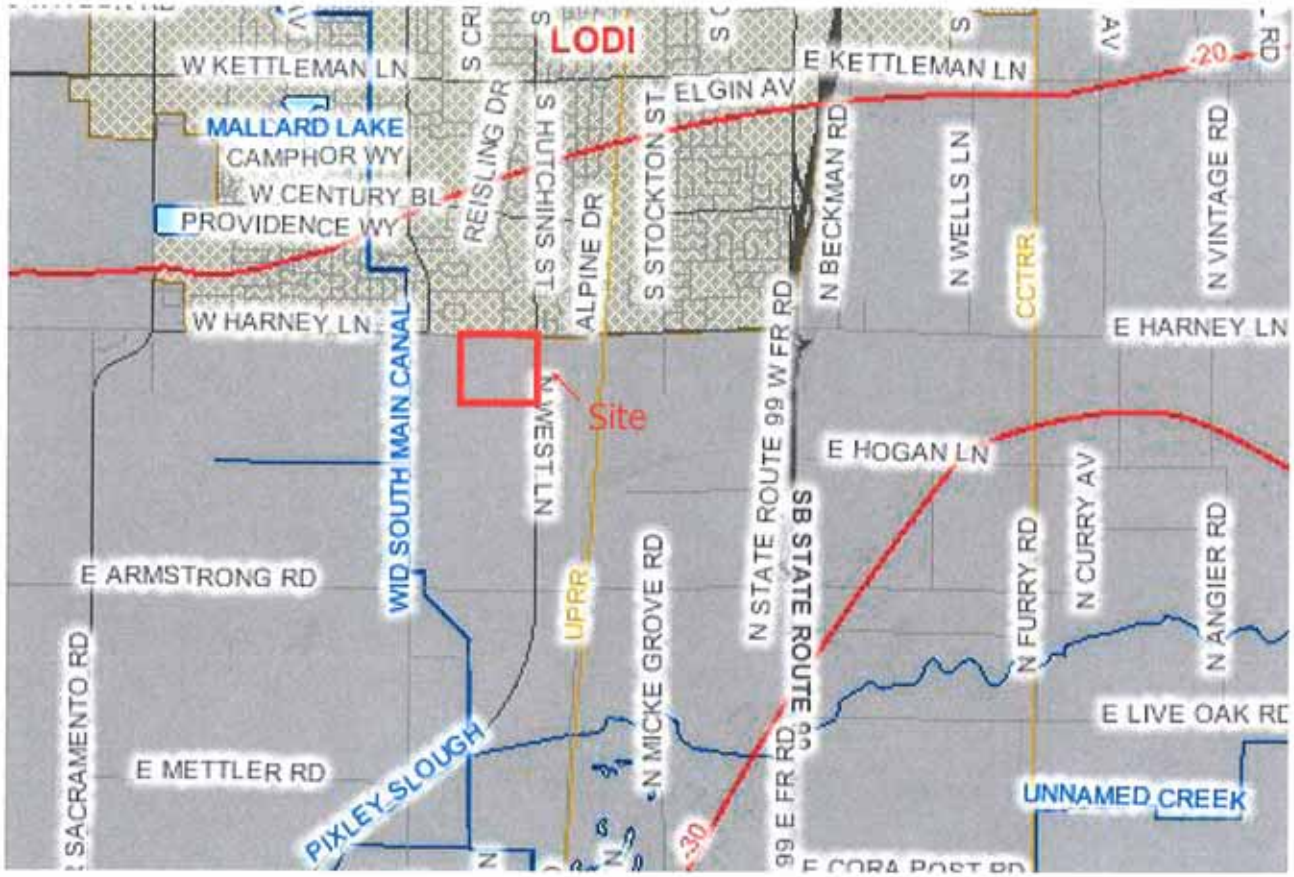
257 - Tokay Urban land Complex

NEIL O. ANDERSON
AND ASSOCIATES
CORPORATE OFFICE
902 INDUSTRIAL WAY
LODI, CALIFORNIA 95240
PHONE: (209) 367-3701
FAX: (209) 333-8303
SACRAMENTO
MODESTO
FERNLEY
GEOTECHNICAL
ENVIRONMENTAL
GROUNDWATER
INSPECTIONS & TESTING
LABORATORY SERVICES
POOL ENGINEERING
POST TENSION DESIGN
www.noanderson.com
Copyright © 2007 Neil Anderson - All Rights Reserved

Surface Soil Map

South Harney Lane Annexation
SW Corner of Harney and West Lane
Lodi, CA 95240

DATE: 12/08/2008
JOB NUMBER: LES080586
SCALE: Not to Scale
DRAWN BY: DK
CHECKED BY: DW
PLATE: 4



Source: Lines of Equal Elevation of Groundwater, Spring 2008, San Joaquin County Flood Control and Water Conservation District. Contour interval is 10 feet.

Explanation:

30 Line of Equal Elevation

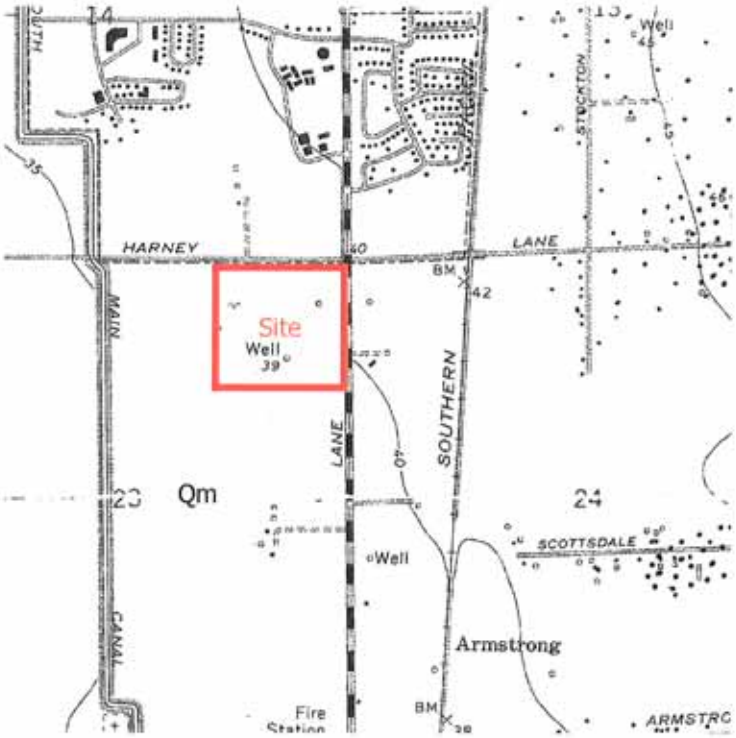
Location of Subject Site

NEIL O. ANDERSON AND ASSOCIATES
CORPORATE OFFICE
902 INDUSTRIAL WAY
LODI, CALIFORNIA 95240
PHONE: (209) 367-3701
FAX: (209) 333-8303
SACRAMENTO
MODESTO
FERNLEY
GEOTECHNICAL
ENVIRONMENTAL
GROUNDWATER
INSPECTIONS & TESTING
LABORATORY SERVICES
POOL ENGINEERING
POST TENSION DESIGN
www.noanderson.com
Copyright © 2007 Neil Anderson - All Rights Reserved

Lines of Equal Elevation to Groundwater, 2008

South Harney Lane Annexation
SW Corner of Harney and West Lane
Lodi, CA 95240

DATE: 12/08/2008
JOB NUMBER: LES080586
SCALE: 1:61250
DRAWN BY: DK
CHECKED BY: DW
PLATE: 5



Source: Atwater, B. F., 1982, Geologic Map of the Sacramento-San Joaquin Delta, California, Lodi South Quadrangle, USGS Miscellaneous Field Studies MF-1401, Sheet 13 of 21, Scale 1:24,000

Explanation:

Scale

0 1/2 1

Miles

1 in = 2,000 ft

1 : 24,000

Qm - Modesto Formation (Pleistocene) - Dense to loose sand, probably eolian in nature and loose sand and silt that is chiefly fluvial

Location of Subject Site

NEIL O. ANDERSON AND ASSOCIATES

CORPORATE OFFICE
902 INDUSTRIAL WAY
LODI, CALIFORNIA 95240
PHONE: (209) 367-3701
FAX: (209) 333-8303

SACRAMENTO
MODESTO
FERNLEY

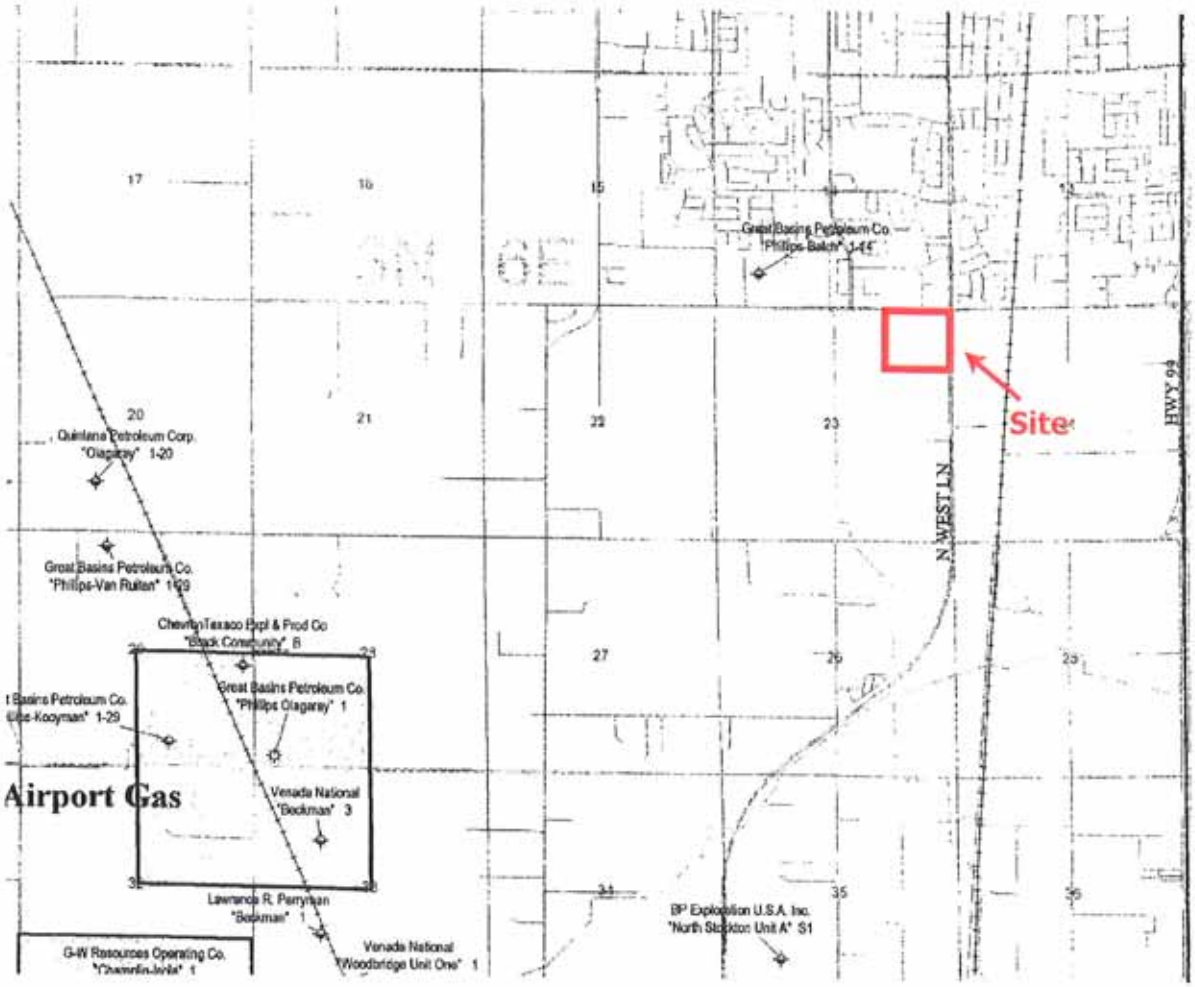
GEOTECHNICAL
ENVIRONMENTAL
GROUNDWATER
INSPECTIONS & TESTING
LABORATORY SERVICES
POOL ENGINEERING
POST TENSION DESIGN
www.noanderson.com

Copyright © 2007 Neil Anderson - All Rights Reserved

Geologic Map

South Harney Lane Annexation
SW Corner of Harney and West Lane
Lodi, CA 95240

DATE: 12/08/2008
JOB NUMBER: LES080586
SCALE: Indicated above.
DRAWN BY: DK
CHECKED BY: DW
PLATE: 6



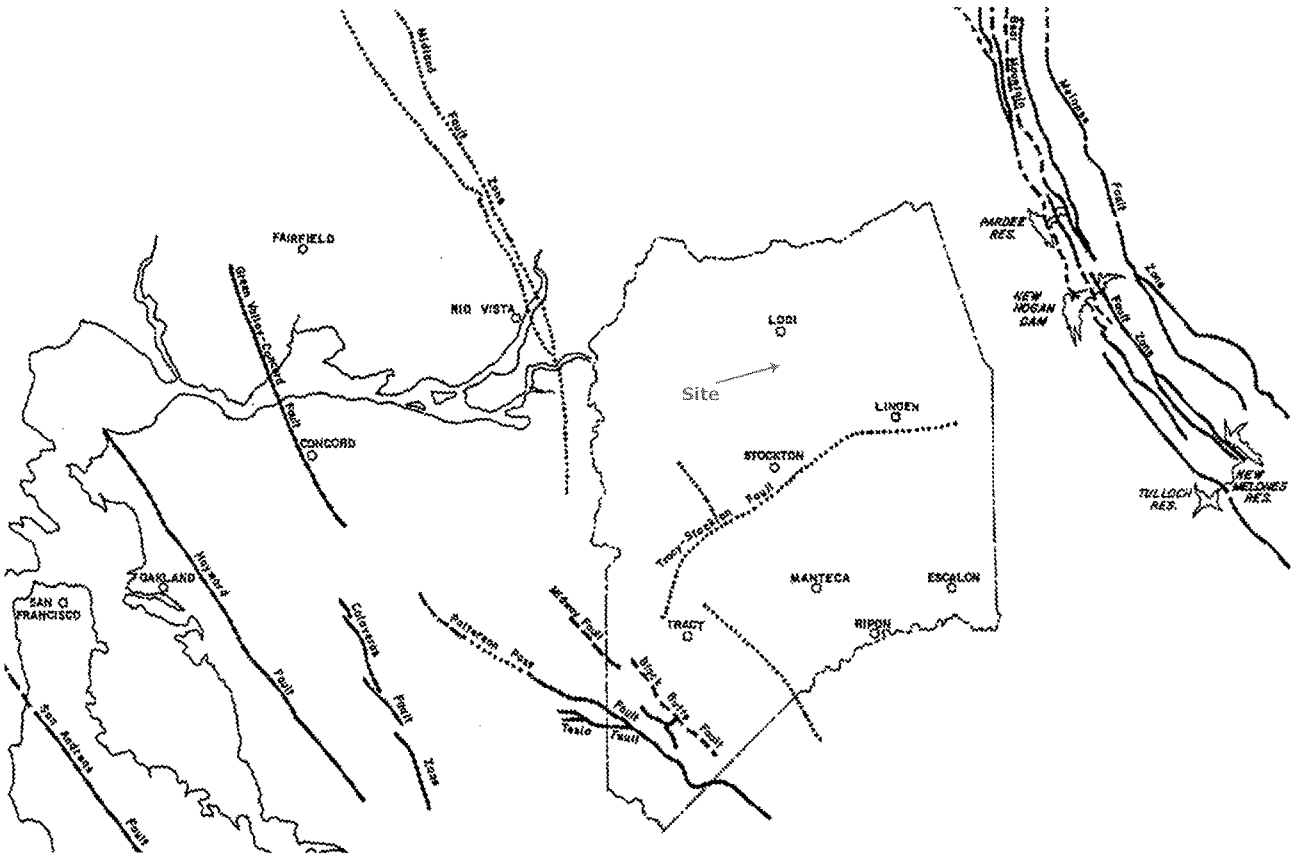
Source: California Division of Oil, Gas, and Geothermal Resources, 2007, Oil, Gas, and Geothermal Fields in California, Map W611: DOGGR (ftp://ftp.consrv.ca.gov/pub/oil/maps/dist5/w611/Mapw611.pdf

NEIL O. ANDERSON AND ASSOCIATES
CORPORATE OFFICE
902 INDUSTRIAL WAY
LODI, CALIFORNIA 95240
PHONE: (209) 367-3701
FAX: (209) 333-8303
SACRAMENTO
MODESTO
FERNLEY
GEOTECHNICAL
ENVIRONMENTAL
GROUNDWATER
INSPECTIONS & TESTING
LABORATORY SERVICES
POOL ENGINEERING
POST TENSION DESIGN
www.noanderson.com
Copyright © 2007 Neil Anderson - All Rights Reserved

Gas and Oil Well Location Map

South Harney Lane Annexation
SW Corner of Harney and West Lane
Lodi, CA 95240

DATE: 12/08/2008
JOB NUMBER: LES080586
SCALE: Not to Scale
DRAWN BY: DK
CHECKED BY: DW
PLATE: 7



Source: San Joaquin County, 1992, San Joaquin County General Plan, Seismic Saftey Section, Volume I, V2.

NEIL O. ANDERSON
AND ASSOCIATES
CORPORATE OFFICE
902 INDUSTRIAL WAY
LODI, CALIFORNIA 95240
PHONE: (209) 367-3701
FAX: (209) 333-8303
SACRAMENTO
MODESTO
FERNLEY
GEOTECHNICAL
ENVIRONMENTAL
GROUNDWATER
INSPECTIONS & TESTING
LABORATORY SERVICES
POOL ENGINEERING
POST TENSION DESIGN
www.noanderson.com
Copyright © 2007 Neil Anderson - All Rights Reserved

Active Fault Map

South Harney Lane Annexation
SW Corner of Harney and West Lane
Lodi, CA 95240

DATE: 12/08/2008
JOB NUMBER: LES080586
SCALE: Not to Scale
DRAWN BY: DK
CHECKED BY: DW
PLATE: 8

PRELIMINARY GEOTECHNICAL INVESTIGATION

SOUTH HARNEY LANE ANNEXATION

SOUTHWEST CORNER OF HARNEY LANE AND WEST LANE

LODI, CALIFORNIA

REPORT PREPARED FOR:

MR. MICHAEL CAROUBA,
FF LP

OUR PROJECT NUMBER: LGE080606

DECEMBER 8, 2008

This document was prepared for use only by the client, only for the purposes stated, and within a reasonable time from issuance. Non-commercial, educational, and scientific use of this report by regulatory agencies is regarded as a "fair use" and not a violation of copyright. Regulatory agencies may make additional copies of this document for internal use. Copies may also be made available to the public as required by law. The reprint must acknowledge the copyright and indicate that permission to reprint has been received.

902 Industrial Way ▪ Lodi, CA 95240 ▪ 209.367.3701 ▪ Fax 209.333.8303

©2008 Neil O. Anderson & Associates, Inc

NEIL O. ANDERSON
AND ASSOCIATES

GEOTECHNICAL
ENVIRONMENTAL
INSPECTIONS & TESTING
LABORATORY SERVICES
POOL ENGINEERING
POST TENSION DESIGN

December 8, 2008
Our Project Number: LGE080606

Mr. Michael Carouba
FF LP
540 S. Mills Avenue
Lodi, CA 95240

Subject: **Preliminary Geotechnical Investigation**
South Harney Lane Annexation
Southwest Corner of Harney Lane and West Lane
Lodi, California

Dear Mr. Carouba:

The following report presents the findings and conclusions of our preliminary geotechnical investigation conducted at the subject site. The purpose of the report was to provide preliminary geotechnical recommendations for the Environmental Impact Report (EIR), as indicated in our proposal dated November 10, 2008 and accepted November 20, 2008. A complete geotechnical report was not requested nor intended at this time due to the unknown major retail tenants. **This report is preliminary in nature and should not be relied upon to develop construction documents.** Recommendations for this project have been provided in the body of the report. Execution of a complete geotechnical investigation report and coordination between our office and your grading contractor will help reduce the potential for soil related problems.

Key information regarding this geotechnical report is presented on the following page. This information sheet has been provided to aid you in assessing the limitations of this geotechnical investigation as well as to indicate when additional information from our office may be required.

We appreciate the opportunity of working with you on this project and look forward to providing our services in the future. Please contact us if you have any questions.

Sincerely,
NEIL O. ANDERSON & ASSOCIATES, INC.

Anthony K. Tran, Project Engineer
Professional Engineer 72480

REGISTERED PROFESSIONAL ENGINEER
ANTHONY K. TRAN
A.T.
No. 72480
EXP. 6-30-10
CIVIL
STATE OF CALIFORNIA

DEC 0 8 2008

Garret S.H. Hubbart, Principal
Geotechnical Engineer 2588

REGISTERED PROFESSIONAL ENGINEER
GARRET S. H. HUBBART
No. 2588
Exp. 6/09
GEOTECHNICAL
STATE OF CALIFORNIA

DEC 0 8 2008

KEY INFORMATON REGARDING YOUR GEOTECHNICAL REPORT

➢ *The Applicability of Geotechnical Reports is Limited*

Geotechnical reports are written to provide test results, observations, and professional opinions regarding a specific site for a specific project. Reports are tailored to the client and are influenced by each client's risk management strategies, economical constraints, and personal preferences. Since each report is a "custom fit" for a particular client, reports should not be transferred to anyone else without first consulting the geotechnical engineer.

Each geotechnical report considers only the construction information and site boundaries that existed at the time of the investigation. Modification of construction plans, such as a change in the shape, size, weight, location, or intended use of a project, nullifies the recommendations contained in the report, unless the geotechnical engineer indicates otherwise. A geotechnical report can not be used for an adjacent site. Time and money can often be saved by consulting with the geotechnical engineer when circumstances change from those which existed when the report was written.

➢ *Site Conditions Can Change*

The conditions which existed at the time of a geotechnical investigation can change. Investigations can only report conditions at a particular time and place and no guarantee exists to ensure that recommendations will apply after natural or man made changes occur. Examples of some possible changes include: earthquakes, floods, fluctuations in groundwater, construction on or *next* to the site, and the addition or removal of soil. In addition, even the mere passing of time can affect site conditions. Consult with the geotechnical engineer to verify site conditions have not changed since the geotechnical report was completed.

➢ *Geotechnical Findings Are Comprised Primarily of Professional Opinions*

Even if typical 6 inch borings were spaced 5 feet apart across an entire site (typical borehole spacings are on the order of at least 10's or 100's of feet apart), *less than one percent* of the soil or rock on the site would actually be explored. From this limited exploration, the geotechnical engineer is called on to provide an opinion regarding the subsurface conditions across the site, provide appropriate foundation recommendations, and predict the response of subsurface materials to numerous scenarios using information from samples that may or may not be representative of the entire site. Obviously, most of the geotechnical report is based on the professional opinion of the geotechnical engineer. The actual subsurface conditions may significantly differ from those which were encountered during the geotechnical investigation. Consequently, the most effective method of managing the risks associated with a project is to retain the geotechnical engineer who provided the report throughout construction of the project.

➢ *Contact Your Geotechnical Engineer When in Doubt*

Time, money, and confusion can all be saved by simple explanations at critical moments. Please contact your geotechnical engineer whenever there is any doubt regarding subsurface conditions or their effect on part or all of any project.

902 Industrial Way • Lodi, CA 95240 • 209.367.3701 • Fax 209.333.8303

©2008 Neil O. Anderson & Associates, Inc

PRELIMINARY GEOTECHNICAL INVESTIGATION
SOUTH HARNEY LANE ANNEXATION
SOUTHWEST CORNER OF HARNEY LANE AND WEST LANE
LODI, CALIFORNIA

TABLE OF CONTENTS

1.0 INTRODUCTION 1
2.0 GENERAL (SURFICIAL) SITE CONDITIONS 2
3.0 GENERAL GEOLOGIC CONDITIONS 2
4.0 FIELD EXPLORATION AND LABORATORY TESTING 3
5.0 SOIL CONDITIONS 4
6.0 PRELIMINARY DESIGN STUDIES AND RECOMMENDATIONS 5
- 6.1 Anticipated Grading 5
- 6.2 Winterization and Construction Equipment Mobilization 5
- 6.4 Floor Slabs 7
- 6.5 Retaining/Screen Walls 8
- 6.6 Drainage 9
- 6.7 Excavation 9
- 6.8 Testing, Inspections and Review 9

7.0 PAVEMENT RECOMMENDATIONS 10
8.0 UTILITY CONSTRUCTION 11
9.0 LIMITATIONS 12

APPENDIX A
Engineered Fill Specifications

APPENDIX B ..... Plate Number
- Location Map 1
- Site Boring Logs ..... 2 - 12
- Boring Legend 13

©2008 Neil O. Anderson & Associates, Inc

December 8, 2008

PRELIMINARY GEOTECHNICAL INVESTIGATION

SOUTH HARNEY LANE ANNEXATION

SOUTHWEST CORNER OF HARNEY LANE AND WEST LANE

LODI, CALIFORNIA

OUR PROJECT NUMBER: LGE080606

1.0 INTRODUCTION

This report presents the findings, conclusions, and recommendations of a preliminary geotechnical investigation conducted for the proposed new commercial development to be constructed at the southwest corner of Harney Lane and West Lane in Lodi, California.

We understand that the proposed site will encompass approximately 30 acres. The proposed commercial development will include construction of two new streets bordering the south and the west sides of the site as well as road improvements to Harney Lane and West Lane bordered to the north and east, respectively. The development will include approximately 15 acres of major commercial retail at the corner of Harney Lane and West Lane. This construction will include 71,100 square feet of major lease space, 27,250 square feet of store lease space and a bank with 5,000 square feet with a combined parking area of 576 stalls. The approximately 15 acres of remaining land will be secondary lease space which will border the south and west sides of the major lease space. This remaining space will consist of office buildings and a restaurant with a combined parking area of 978 stalls.

The major commercial construction will include single story wood frame for the smaller stores and concrete/masonry walls with steel interior framing for the larger stores. The secondary lease space will consist of single, two and three story wood frame buildings with concrete slab on grade floors. We anticipate maximum foundation loads for the major commercial buildings to be moderate. Maximum (dead plus live) loads for perimeter and interior wall loads will be in the range of 2 to 4 kips per linear foot. Maximum (dead plus live) isolated column loads are anticipated to be in the range of 40 to 80 kips. We anticipate maximum foundation loads for the smaller office and store buildings to be light. Maximum (dead plus live) loads for perimeter and interior wall loads will be in the range of 1 to 3 kips per linear foot. Maximum (dead plus live) isolated column loads are anticipated to be in the range of 10 to 40 kips. From our

©2008 Neil O. Anderson & Associates, Inc

experience with the area, we have estimated that minor grading, less than 3 feet in vertical extent, will be required to grade the site. The buildings will be surrounded by concrete flatwork and landscaping.

The geotechnical study conducted at this site was prepared for the use of the architect and owner for application to the development planning in accordance with generally accepted geotechnical engineering practices. **Recommendations for the commercial developments are preliminary only since specific building types and locations are not exactly known at this time. The main purpose of this report is to provide recommendations for the Environmental Impact Report. Additional geotechnical studies will be required for the buildings and site infrastructure.** No warranty is expressed or implied. This report presents the results of this study.

2.0 GENERAL (SURFICIAL) SITE CONDITIONS

At the time of our investigation, the site consisted of an abandon golf course and agricultural land located at the west and east half of the property, respectively. The west half of the property is covered with low to medium grass and weed growth. There are two metal storage containers and one old single story office building located at northeast corner and north side of the golf course, respectively. The east half of the property contains row crops such as strawberries along with low weed growth. There are also several unpaved roads that are contained on the east half of the property. The site is bordered to the north by Harney Lane, to the east by West Lane, to the south by agricultural land, and to the west by a vineyard. There is also an unpaved road that separates the site from the agriculture land to the south and vineyard to the west.

3.0 GENERAL GEOLOGIC CONDITIONS

A geologic map of the area was reviewed and indicated the surface soils are described as Pleistocene Age arkosic alluvium from the upper member of the Modesto Formation (Qm_2). The closest active fault with a Maximum Magnitude of 6.6 with a slip rate of 2 millimeters per year is the Greenville fault zone located a distance of 54 kilometers from the site. A significantly more active fault with a Maximum Magnitude of 6.7 and a slip rate of 9 millimeters per year is the Hayward fault located at a distance of 84 kilometers.

The new 2007 California Building Code was adopted January 1, 2008 which references the 2006 International Building Code and the ASCE 7-05 Standard. Following is a table

©2008 Neil O. Anderson & Associates, Inc

of the 2007 California Building Code Soil Parameters[1] which may be used for seismic design of structures at the subject site:

2007 California Building Code Seismic Design Parameters	
Site Class	D
Mapped Spectral Acceleration Value of Rock (Short Period), S_S	0.733g
Mapped Spectral Acceleration Value of Rock (1-Second Period), S_1	0.266g
Site (Amplification) Coefficient, F_a	1.214
Site (Amplification) Coefficient, F_v	1.869
Maximum Considered Earthquake/Site Modified (MCE) Spectral Response Acceleration Value (Short Period), S_{MS}	0.890g
Maximum Considered Earthquake/Site Modified (MCE) Spectral Response Acceleration Value (1-Second Period), S_{M1}	0.496g
Design Spectral Acceleration Value (Short Period), S_{DS}	0.593g
Design Spectral Acceleration Value (1-Second Period), S_{D1}	0.331g

A site latitude and longitude of 38.09943° and -121.28093° were utilized in conjunction with the tools provided by United States Geologic Survey web site. In accordance with 2007 California Building Code, Section 1802.2.7.2, a ground acceleration of 0.237g (S_{DS}/2.5) should be anticipated. A liquefaction evaluation was outside the scope of our services; however due to the depth of groundwater in the area, greater than 50 feet, the age of the on-site soils, and our experience in the Lodi area, the probability of liquefaction induced surface distress is considered very low.

4.0 FIELD EXPLORATION AND LABORATORY TESTING

The field investigation conducted at this site consisted of drilling 11 exploratory test holes carried to depths of 6½ and 21½ feet below the existing ground surface. The test holes were drilled with a truck mounted Mobile B53 drill rig, utilizing 4-inch continuous flight auger. The locations of the test holes are shown on the Location Map, Plate No. 1. The locations of the test holes were determined by pacing from existing site features; hence, accuracy can be implied only to the degree that this method warrants.

Sampling of the drilled test holes was performed at various depths using a California Modified 2.5 inch o.d. split spoon sampler with stainless steel tube liners. The sampler was driven by a 140 pound hammer with a 30-inch drop. Blow counts required to drive the sampler every 6 inches for a total of 18 inches were recorded. The blow counts for

[1] USGS Earthquake Ground Motion Parameters Version: 5.0.9 – 10/6/2008

©2008 Neil O. Anderson & Associates, Inc

the drilled test holes were corrected from an energy efficiency of approximately 45 percent to a standard cat head efficiency of approximately 60 percent.

Soil samples obtained from the test holes were preserved in stainless steel tubes until the samples could be tested in the laboratory. Samples were taken to the laboratory of Neil O. Anderson & Associates, Inc., Lodi, California and used for performing various laboratory tests. Tests performed consisted of unit weights, moisture contents, and pocket pentrometer readings. A summary of the test results are presented on the Log of Test Boring sheets, Plates 2 through 12.

5.0 SOIL CONDITIONS

Visual classification of each soil stratum encountered according to ASTM D2488 (Visual – Manual Procedure) was made in the field by a representative from our office at the time the test holes were drilled. The samples obtained were checked in the laboratory by a geotechnical engineer and classification verified according to ASTM D2487. A classification and graphical representation of each soil encountered is presented on the Log of Test Boring sheets. The test boring legend is presented on Plate No. 13.

The soils encountered during our field investigation were fairly uniform between test holes. The upper soils consisted of medium dense to very dense weakly cemented silty fine to medium sand that extended to depths of between 4 and 16½ feet below the existing ground surface (bgs). The upper soils were underlain by dense to very dense fine to medium sand with silt that extended to depths of between 9 and 19 feet bgs. These soils were underlain by very dense clayey fine sand and very dense silty fine sand that extended to the maximum depths explored of 16½ and 21½ feet bgs. In boring B11, the upper soils were underlain by hard very fine sandy silt that extended to the maximum depth explored of 6½ feet bgs. For a more detailed description of the soils encountered in the test holes see the Logs of Test Boring sheets.

Test hole logs show subsurface conditions at the date and location indicated and it is not warranted that they are representative of subsurface conditions at other locations and times.

Groundwater was not encountered in any of the borings at the time the borings were drilled. A county groundwater map was reviewed and indicated groundwater in the area to be greater than 50 feet below ground surface. Groundwater conditions in the future could change due to rainfall, construction activities, irrigation, or other factors. The evaluation of these factors is beyond the scope of this study.

©2008 Neil O. Anderson & Associates, Inc

6.0 PRELIMINARY DESIGN STUDIES AND RECOMMENDATIONS

From a soil engineering standpoint, our office concludes that the site is suitable for construction of the proposed new commercial development; however, all of the conclusions and recommendations presented in this report should be incorporated into the development planning to help reduce the potential for soil and foundation problems. Our main concern for construction of the buildings is uniform support of the foundations. **As indicated above, this investigation is specifically for the EIR and development planning and only provides preliminary information for the commercial construction. A site specific study will be required for the infrastructure and buildings.**

6.1 Anticipated Grading

The site should be initially cleared of all vegetation, trees, roots, debris, and deleterious material as outlined in Appendix A, Engineered Fill Specifications. Areas that are covered with light vegetation consisting of native weeds and grasses may be blended into the soil. Areas of moderate or heavy vegetation should not be blended into surficial soils, but should be cut and removed from the site. An engineer from our office is required to determine the degree of vegetation prior to grading operations. Voids resulting from the removal of any buried structures (such as irrigation structures or pipes, foundations, septic systems or water lines) should be cleaned of all loose soil and debris so that they may be backfilled during filling operations. All wells shall be abandoned in accordance with San Joaquin County requirements. After clearing operations and any cuts have been made, the subgrade thus exposed shall be scarified a minimum of 8 inches and compacted as indicated in Appendix A. Fill placed on building pads and in pavement areas should be non expansive and placed as engineered fill as recommended in Appendix A. Soils encountered on the site should be suitable for use as engineered fill.

6.2 Winterization and Construction Equipment Mobilization

The near surface cemented soils located across the site can trap moisture from winter rains within the upper zones of the subgrade. This is known to cause unstable "pumping" subgrade conditions which can hinder the movement of grading equipment if construction is occurring in the winter or early spring. This should be taken into consideration when planning the site grading during wet conditions. Our office can provide recommendations for subgrade stabilization of haul road and/or equipment staging areas if requested.

©2008 Neil O. Anderson & Associates, Inc

6.3 Spread Foundations

If grading is accomplished as specified, foundations for the proposed buildings may consist of shallow, spread or continuous foundations bearing on compacted native soil, engineered fill, or a combination of both. **Bearing capacity recommendations for foundations should only be considered as preliminary since building types and locations are not known at this time. Additional geotechnical studies will be required for these portions of the project.**

In order to provide more uniform support for the structures, the bottom of all foundation excavations should be compacted with hand equipment, i.e. "whackers," vibraplates, pogo sticks, etc., prior to the placement of reinforcing steel or concrete. Foundations bearing on compacted native soil and as modified above may be designed using a bearing capacity of 2000 pounds per square foot (psf) for dead plus live loads. If a higher bearing capacity is desired, we recommend the foundations be supported on a minimum of 2 feet of engineered fill consisting of overexcavated and compacted soil as specified in Appendix A. With the foundations supported on a minimum of 2 feet of engineered fill, a bearing capacity of 3000 psf for dead plus live loads may be used in design. If a higher bearing capacity is desired, we recommend the foundations be supported on the cemented soils. With the foundations completely supported on the cemented soils, a bearing capacity of 4000 psf for dead plus live loads may be used in design. The above bearing capacities may be increased by 1/3 for temporary wind and seismic loads.

The minimum width of all foundations should be 12 inches. Foundations for the one and two/three story structures should be embedded a minimum depth of 12 or 18 inches, respectively, below lowest adjacent grade.

Potential settlement, either immediate or long term, of foundations constructed on compacted native soils and loaded in the manner described above, should be less than 1 inch total and ½ inch differential across the width of the buildings. Settlement of foundations supported on a minimum of 2 feet of engineered fill should be less than ½ inch for the total and differential across the width of the buildings. Care should be taken to understand settlements may vary based on actual loads and footing sizes.

To ensure footings have adequate support, special care should be taken when footings are located adjacent to trenches. The bottom of such footing should be at least 1 foot below an imaginary plane with an inclination of 1.5 horizontal to 1.0 vertical extending upward from the nearest bottom edge of the adjacent trench.

©2008 Neil O. Anderson & Associates, Inc

Lateral resistance for spread footing may be provided by assuming a passive pressure acting against the side of the footings equal to 350 pounds per cubic foot (pcf) equivalent fluid pressure. Lateral resistance for spread footing in cemented soils may be provided by assuming a passive pressure acting against the side of the footings equal to 550 pounds per cubic foot (pcf) equivalent fluid pressure. Lateral resistance may also be provided by computing friction between the bottom of the footing and the soil. A coefficient of friction of 0.50 should be utilized. If footings are cast against firm native soil, passive and frictional resistance may be combined but the passive resistance should be reduced by 50 percent.

6.4 Floor Slabs

Moisture transmission through concrete slab-on-grade floors has been known to cause delamination, warping and other damage to floor coverings. Wood and vinyl floorings are particularly susceptible to damage. Neil O. Anderson & Associates does not profess to be experts in moisture proofing concrete slabs-on-grade, and our firm knows of no construction method that will completely eliminate the risk of damage. In order to provide some level of protection against damage, it is common practice in this area to place a capillary break and a vapor retarder beneath the slab.

There are additional measures that may be incorporated to further reduce, but not eliminate, the risk. Some (but not all) of these measures include: using concrete with a water-cement ratio less than 0.45, employing a qualified testing laboratory to provide materials testing and quality control during concrete placement and curing, using topical concrete sealers, installing water stops at cold joints between the foundation and slab on grade, sealing the vapor retarder where plumbing penetrations occur, limiting the use of vinyl and wood flooring, and testing the concrete slab for moisture transmission rates immediately prior to placement of floor coverings. These measures may be considered if additional protection is desired.

The following recommendations are commonly used in this area and we believe these measures should be incorporated to provide a minimum level of protection against damage.

Minimum Recommendations:

The upper 8 inches of all building pads should be scarified and compacted as engineered fill. Four inches of clean ¾ inch gravel should be placed beneath the slabs on grade. The gravel should be covered by an impervious vapor retarder such as 10 mil sheet vinyl or equivalent. The vapor retarder should be continuous and lapped a minimum of 2 feet and draped down the side of the footings at least 1 foot. The vapor

©2008 Neil O. Anderson & Associates, Inc

retarder should be covered by 2 inches of sand to protect it during construction and to aid in curing the concrete. This sand should meet the requirements of ACI 302.1R. However, we know from experience that most local sand will not meet these requirements. In our opinion, the sand should be a sand or silty sand containing no more than 20 percent passing the No. 200 sieve. Alternative materials must be approved by the geotechnical engineer prior to being brought to the site.

The sand should be moist but not saturated at the time of concrete placement. If the sand is saturated or free water is visible, the concrete should not be placed until the sand is dried sufficiently to only be moist or is replaced. If construction will take place in winter, sand may be substituted with 3/8 inch pea-gravel. The pea gravel may not be saturated. Free water must not be visible on the gravel. If the gravel is saturated, it must be dried sufficiently to only be moist or be replaced prior to placement of concrete.

Our office recommends the floor slab thickness and reinforcing design be determined by the project structural engineer. Exterior finish grades should be below the floor subgrade level unless special drainage and waterproofing features are employed to reduce the potential for moisture migration under the slab.

Industrial Slabs:

Industrial floor slabs subjected to forklift or other heavy loads are often designed using a modulus of subgrade reaction. We recommend using a modulus of 200 pci for this site. Industrial floor slabs should be underlain with at least 6 inches of Class II aggregate base over compacted subgrade. Aggregate base should be compacted to at least 95% of maximum dry density obtained in the ASTM D1557 test method. Industrial floor slabs should be designed by the structural engineer. The structural engineer should select the most appropriate design method for the intended use of the slab.

6.5 Retaining/Screen Walls

Site retaining walls may be constructed. Retaining walls will be subject to lateral earth pressures. Site retaining walls may be supported by a spread footing type foundation.

The lateral earth pressure on a retaining wall depends on the height of the wall, type of backfill, slope of the backfill surface, and allowable horizontal movement on top of the wall. A calculated at-rest earth pressure of 55 pcf equivalent fluid density should be used for retaining walls which are restrained from rotating at the top. A calculated active earth pressure of 35 pcf equivalent fluid density should be used for site retaining

©2008 Neil O. Anderson & Associates, Inc

walls which are allowed to rotate at the top. We have assumed the backfill will be the on-site soils and have a flat surface behind the wall. For lateral load resistance, footings may be designed with a passive earth pressure of 350 pcf. Equivalent fluid densities do not include allowances for surcharge loads or hydrostatic pressures. The hydrostatic pressure on the retaining walls should be relieved using drains behind the walls connected to tight lines.

6.6 Drainage

Special care should be taken to ensure adequate drainage is provided throughout the life of the structures. Properly designed and constructed foundations can be seriously damaged by neglecting to install and regularly verify performance of recommended drainage systems. Appropriate down spout extensions from roof drainage should fall on splash blocks a minimum of 2 feet from the structure or be connected to tight lines that drain away from the buildings. Any flatwork adjacent to the buildings should slope a minimum of 1 percent for a distance of 5 feet. Exposed exterior subgrade (soil or non-paved areas) should slope away from the structures at a minimum slope of ½ inch per foot for a distance of 8 to 10 feet beyond the building perimeters. If this grade is unable to be obtained, proper drainage inlets will need to be placed to carry surface water away from the foundations.

Care should be taken to ensure that landscaping is not excessively irrigated and to ensure that landscaping drains away from the structures. Implementation of adequate drainage for this project can effect the surrounding developments. Consequently in addition to designing and constructing drainage for the subject site, the effects of site drainage must be taken into consideration for surrounding sites.

6.7 Excavation

As indicated previously, medium dense to very dense sandy soils which became cemented in places were encountered in our test borings. Consequently, conventional excavating equipment for the area may be utilized on this site, but more time should be budgeted to excavate cemented soil. The contractor should plan his work accordingly.

6.8 Testing, Inspections and Review

Our office should be retained to perform the complete geotechnical investigation. We also should be afforded the opportunity of reviewing the completed foundation and grading plans to verify that our recommendations have been properly interpreted and incorporated. Unless our office is allowed this opportunity, we disavow any responsibility from problems arising from failure to follow geotechnical

©2008 Neil O. Anderson & Associates, Inc

recommendations or improper interpretation and implementation of our recommendations.

Our office should be retained to perform the recommended grading observations and compaction testing. Unless we have been retained to provide these services, our office cannot be held responsible for problems arising during or after construction that could have been avoided had these services been performed. The fees for these services are in addition to that associated with this report.

7.0 PAVEMENT RECOMMENDATIONS

One bulk soil sample was obtained from the near surface soils on the site and was subjected to an R-value test in our laboratory. The sample was obtained from 12 to 18 inch below existing ground surface. The approximate location of this sample is shown on the Location Map, Plate No. 1. The R-value test rendered a value of 59. Based on our experience in this area of Lodi and the varying amount of silt content in the upper soils, a design R-value of 50 was utilized. Traffic indices from 4.0 and 10.0 were used to design the pavement section for the site based on our experience with similar sites. **The project civil engineer should be afforded the opportunity of specifying the most appropriate traffic index for the proposed traffic and usage.** If a different traffic index is desired or required, please contact our office and a suitable recommended design can be provided. Flexible (asphalt) pavement sections have been designed according to the latest addition of the Cal Trans Highway design manual and using a 20-year pavement life. The pavement sections designs are shown below.

FLEXIBLE PAVEMENT SECTION DESIGN				
Subgrade R-Value	Traffic Index	Traffic	Pavement Section, inches	
			Asphalt Concrete	Aggregate Base
50	4.0	Auto	2.5	4.0
50	5.0	Auto/Light Truck	3.0	4.0
50	6.0	Auto/Light Truck	3.5	4.0
50	7.0	Auto/Truck	4.0	5.0
50	8.0	Auto/Truck	5.0	5.0
50	9.0	Auto/Truck	5.5	7.0
50	10.0	Auto/ Truck	6.0	8.0

©2008 Neil O. Anderson & Associates, Inc

The paving materials must conform to the requirements of the State of California, Department of Transportation, Standard Specifications, latest edition. Type B asphalt concrete and Class II aggregate base should be used. The subgrade should have a minimum R-value of 50.

The pavement area should be stripped of all organic matter, loose soil, etc., and any required cuts or fills made. A minimum of 8 inches of compacted subgrade should be provided beneath the pavement sections. The subgrade should be compacted to dry densities in excess of 95 percent of the maximum dry density obtainable by the ASTM D1557 test method.

Studies have indicated that a major factor in extending pavement life is to provide adequate drainage for both the pavement surface and subgrade. Care should be made during the development of the grading plan to provide for good drainage. Landscaped and irrigated planters that are constructed adjacent to pavement should have cut-off curbing constructed around them that extends a minimum of 4 inches into the subgrade soil. We recommend rigid concrete pavements in areas where heavy trucks, such as garbage trucks, will travel or make sharp turns. The above recommended pavement sections assume periodic maintenance, such as crack sealing, etc., will be performed over the life of the pavements.

8.0 UTILITY CONSTRUCTION

Based on Occupational Safety and Health Standards, the soils encountered in our test holes classify as Type A (cemented soils) and Type C soils (not cemented). Type A soils require a maximum slope of ¾:1 (horizontal to vertical) and Type C soils require a maximum slope of 1½:1 (horizontal to vertical) for excavations less than 20 feet deep. The contractor should have a competent person identify all soils encountered in excavation and refer to OSHA and Cal-OSHA standards to determine appropriate methods to protect individuals working in excavations.

Backfill placed in trenches should be placed in approximately 8 inch lifts in uncompacted thickness. However, thicker lifts may be used, provided the method of compaction is approved by the soil engineer and the required minimum degree of compaction is achieved. Material should be compacted to at least 90 percent of the maximum dry density obtained by the ASTM D1557 test method. The upper 8 inches of trench backfill within pavement areas should be compacted to at least 95 percent relative compaction.

©2008 Neil O. Anderson & Associates, Inc

9.0 LIMITATIONS

The recommendations of this report are based on the information provided regarding the proposed construction as well as the subsoil conditions encountered at the test hole locations. If the proposed construction is modified or re-sited, or if it is found during construction that subsurface conditions differ from those described on the test hole logs, the conclusions and recommendations of the report should be considered invalid unless the changes are reviewed and the conclusions and recommendations modified or approved in writing.

The analysis, conclusions and recommendations contained in this report are based on the site conditions as they existed at the time we drilled our test holes. It was assumed that the test holes are representative of the subsurface conditions throughout the site. If there is a substantial lapse of time between the submission of our report and the start of the work at the site, or if conditions have changed due to natural causes or construction operations at or adjacent to the site, we urge that our report be reviewed to determine the applicability of the conclusions and recommendations considering the changed conditions and time lapse. This report is applicable only for the project and site studied. This report should not be used after 3 years.

Our professional services were performed, our findings obtained, and our recommendations proposed in accordance with generally accepted engineering principles and practices. This warranty is in lieu of all other warranties either expressed or implied. Test findings and statements of professional opinion do not constitute a guarantee or warranty, expressed or implied.

The scope of our services did not include any environmental assessment or investigation for the presence or absence of wetlands, hazardous or toxic materials in the soil, surface water, groundwater or air, on or below or around this site. Any statements in this report or on the soil logs regarding odors noted or unusual or suspicious items or conditions observed are strictly for the information of our client.

©2008 Neil O. Anderson & Associates, Inc

APPENDIX A
Engineered Fill Specifications

SCOPE

Principal items of work included in this section are as follows:

A. Cleaning and Striping

B. Construction of Fill

A. CLEANING AND STRIPPING

Work includes cleaning and stripping of the building pad and surrounding area as indicated on the drawings. From this area remove all debris, irrigation lines, old pavement, trees, brush, roots, and vegetable ruin and grub out all large roots (1/2 inch or greater diameter) to a depth of at least two feet below the footing elevation. The vegetable materials and all materials from the cleaning operation shall be removed from the site.

B. CONSTRUCTION OF FILL

1. Preliminary Operations

After the cleaning and stripping operation and the cuts have been completed and before any fill is placed in any particular area, the existing surface shall be scarified to a depth of 3 inches and compacted to dry densities in excess of 90 percent of the maximum dry density as obtained by the Standard Test Methods for Laboratory Compaction Characteristics of Soil using Modified Effort, ASTM D1557 designation. The soil should be compacted at a moisture content at or above the optimum moisture content. It may be necessary to adjust the moisture content of the subgrade soil by watering or aeration, to bring the moisture content of the soil near optimum in order that the specified densities can be obtained.

2. Source of Material

Engineered fill materials (on site or import) shall consist of sandy silts, sands, or sands and gravels unless stated otherwise in the report. Engineered fill material shall not contain rocks greater than 3 inches in greatest dimension and should be non-expansive in nature with a plasticity index less than 12.

At least seven days prior to the placement of any fill, the engineer shall be notified of the source of materials. Samples of the proposed fill shall be obtained to determine the suitability of the materials for use as engineered fill.

©2008 Neil O. Anderson & Associates, Inc

3. Placing and Compacting

   Fill materials shall be spread in layers and shall have a uniform moisture content that will provide the specified dry density after compaction. If necessary to obtain uniform distribution of moisture, water shall be added to each layer by sprinkling and the soil disked, harrowed, or otherwise manipulated after the water is added. The layers of the fill material shall not exceed 8 inches and each layer shall be compacted with suitable compaction equipment to provide the specified dry densities.

4. Required Densities

   The dry density of the compacted earth shall be at least 90 percent of the maximum dry density obtainable by the ASTM D1557 test method and 95 percent beneath pavements. The optimum moisture content and maximum dry density will be determined by the engineer and this information supplied to the contractor.

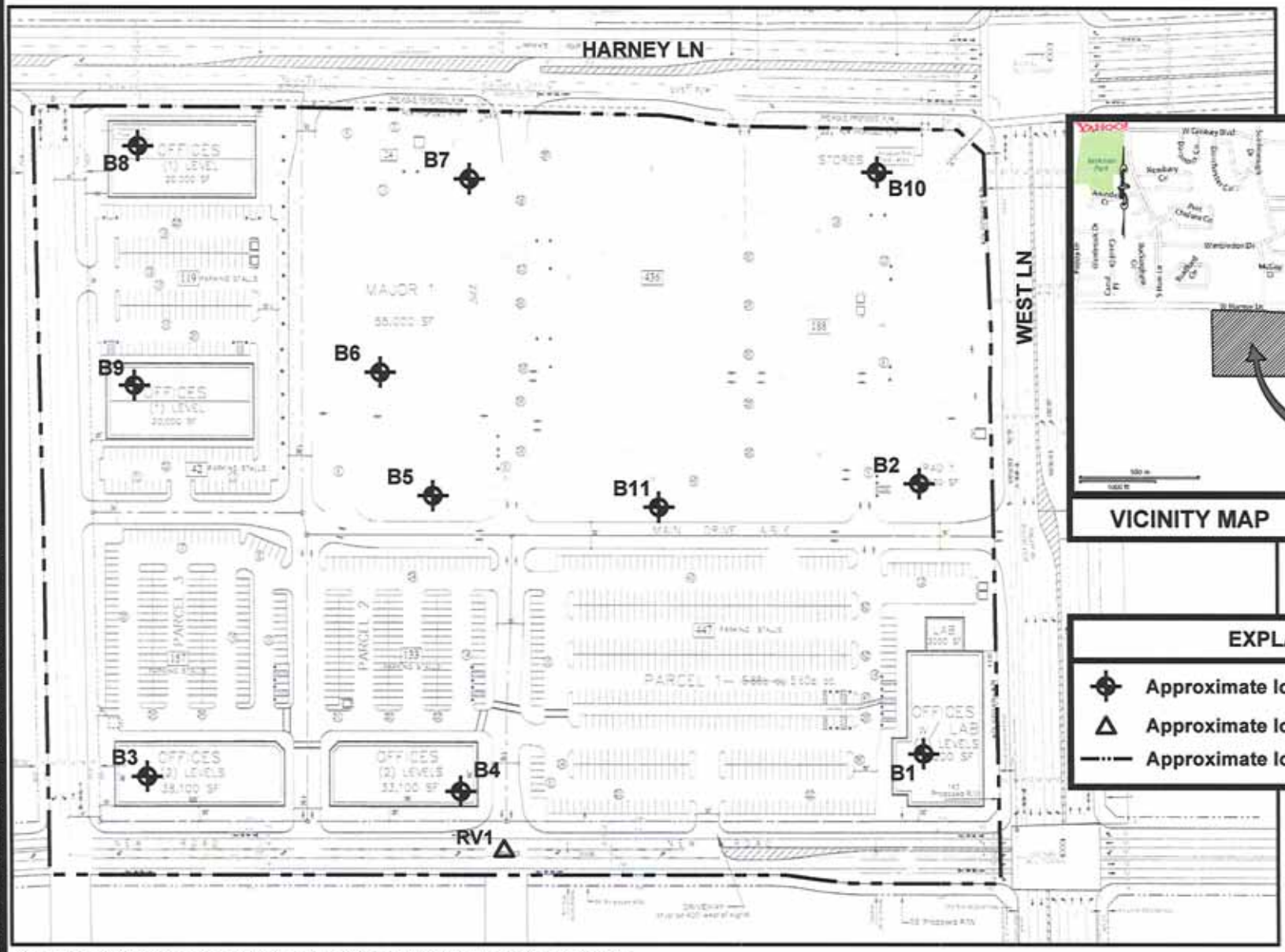
5. Seasonal Limits

   No fill shall be placed during weather conditions which will alter the moisture content of the fill materials sufficiently to make adequate compaction impossible. After placing operations have been stopped because of adverse weather conditions, no additional fill material shall be placed until the last layer compacted has been checked and found to be compacted to the specified densities.

6. Control of Compaction

   The density of the upper 6 inches of subgrade and of each layer of fill shall be checked by the engineer after each layer has been compacted. Field density tests shall be used to check the compaction of the fill materials. Sufficient tests shall be made on each layer by the engineer to assure adequate compaction throughout the entire area. If the dry densities are not satisfactory, the contractor will be required to increase the weight of the roller, the number of passes of the roller, or manipulate the moisture content as required to produce the specified densities.

©2008 Neil O. Anderson & Associates, Inc



VICINITY MAP Lodi, CA - nts

EXPLANATION

- Approximate location of boring
- Approximate location of R-Value
- Approximate location of property line

Base plan provided by Johnson Lyman Architects, Walnut Creek, CA., 10-22-2008.

NEIL O. ANDERSON AND ASSOCIATES

CORPORATE OFFICE
902 INDUSTRIAL WAY
LODI, CALIFORNIA 95240
PHONE: (209) 367-3701
FAX: (209) 333-8303

SACRAMENTO
MODESTO
RENO
WALNUT CREEK
ANGELS CAMP

GEOTECHNICAL
ENVIRONMENTAL
GROUNDWATER
INSPECTIONS & TESTING
LABORATORY SERVICES
POOL ENGINEERING
POST TENSION DESIGN
www.noanderson.com

Copyright © 2008 Neil Anderson - All Rights Reserved

BORING LOCATION MAP

SOUTH HARNEY LN. ANNEXATION
SWC OF HARNEY LN.
AND WEST LN.
LODI, CA

DATE:	12/05/08
JOB NUMBER:	LGE080606
SCALE:	1"=200'-0"
DRAWN BY:	EC
CHECKED BY:	AT
PLATE:	1

S:\Projects\Geotech\2008 Lodi Geotech\LGE080606 South Harney Annexation\CAD FILES\LGE080606.dwg Dec 08, 08 - 4:39pm By: eclotore

Neil O. Anderson & Assoc., Inc.
902 Industrial Way, Lodi, CA 95240
(209)367-3701 Fax (209)333-8303

LOG OF TEST BORING

BOREHOLE NUMBER

B1

PROJECT NUMBER: **LGE080606**
PROJECT NAME: **South Harney Lane Annexation**
LOCATION: **Lodi, CA**
DRILLING EQUIP.: **Mobile B53 Explorer**

DATE DRILLED: **11-26-08**
GROUND SURFACE ELEVATION: **0.0** Feet

PLATE 2

Depth, ft.	Sample	Sampling Method	Moisture, %	Dry Density, pcf	Blow Counts	Blow Count Histogram	Ground Water	Soil Lithology	Soil Lithology Description	Notes
0									SM: Brown, silty fine sand, dense to very dense, weakly cemented, moist	Low vegetation
-1										
-2		CM	5	116	26					
-3										
-4										
-5										
-6		CM	13	104	50					
-7										
-8										
-9										
-10									SP: Brown, fine to medium sand with silt, very dense, moist	
-11		CM	7	114	50					
-12										
-13										
-14										
-15									SP: Brown/yellow, fine to medium sand with silt, dense, moist	
-16		CM	4	101	30					
-17										
-18										
-19									SC: Brown, clayey fine sand, very dense, moist	
-20										
-21		CM	17	111	50					Boring Terminated at 21.5 feet.

Neil O. Anderson & Assoc., Inc.
902 Industrial Way, Lodi, CA 95240
(209)367-3701 Fax (209)333-8303

LOG OF TEST BORING

BOREHOLE NUMBER

B2

PROJECT NUMBER: **LGE080606**
PROJECT NAME: **South Harney Lane Annexation**
LOCATION: **Lodi, CA**
DRILLING EQUIP.: **Mobile B53 Explorer**

DATE DRILLED: **12-1-08**
GROUND SURFACE ELEVATION: **0.0** Feet

PLATE 3

Depth, ft.	Sample	Sampling Method	Moisture, %	Dry Density, pcf	Blow Counts	Blow Count Histogram	Ground Water	Soil Lithology	Soil Lithology Description	Notes
0									SM: Dark brown, silty fine sand, dense to very dense, weakly cemented, moist	Bare ground - unpaved road
-1										
-2		CM	4	109	41					
-3										
-4										
-5									SM: Brown, silty fine sand, very dense, weakly cemented, moist	
-6		CM	15	109	50					
-7										
-8										
-9									SP: Brown, fine to medium sand with silt, very dense, moist	
-10										
-11		CM	9	114	50					Boring Terminated at 11.5 feet.

Neil O. Anderson & Assoc., Inc.
902 Industrial Way, Lodi, CA 95240
(209)367-3701 Fax (209)333-8303

LOG OF TEST BORING

BOREHOLE NUMBER

B3

PROJECT NUMBER: **LGE080606**
PROJECT NAME: **South Harney Lane Annexation**
LOCATION: **Lodi, CA**
DRILLING EQUIP.: **Mobile B53 Explorer**

DATE DRILLED: **11-26-08**
GROUND SURFACE ELEVATION: **0.0** Feet

PLATE 4

Depth, ft.	Sample	Sampling Method	Moisture, %	Dry Density, pcf	Blow Counts	Blow Count Histogram	Ground Water	Soil Lithology	Soil Lithology Description	Notes
0									SM: Brown, silty fine sand, very dense, moderately cemented, moist	Low to moderate grass and weed growth
-1										
-2		CM	3	101	50					
-3										
-4										
-5									SM: Brown, silty very fine to fine sand, dense, weakly cemented, moist	
-6		CM	14	100	46					
-7										
-8										
-9										
-10									SM: Brown, silty fine sand with clay, very dense, moist	
-11		CM	11	119	50					
-12									SM: Brown, silty fine to medium sand, dense, moist	
-13										
-14										
-15										
-16		CM	6	105	31					Boring Terminated at 16.5 feet.

Neil O. Anderson & Assoc., Inc.
902 Industrial Way, Lodi, CA 95240
(209)367-3701 Fax (209)333-8303

LOG OF TEST BORING

BOREHOLE NUMBER

B4

PROJECT NUMBER: **LGE080606**
PROJECT NAME: **South Harney Lane Annexation**
LOCATION: **Lodi, CA**
DRILLING EQUIP.: **Mobile B53 Explorer**

DATE DRILLED: **11-26-08**
GROUND SURFACE ELEVATION: **0.0** Feet

PLATE 5

Depth, ft.	Sample	Sampling Method	Moisture, %	Dry Density, pcf	Blow Counts	Blow Count Histogram	Ground Water	Soil Lithology	Soil Lithology Description	Notes
0									SM: Brown, silty fine sand, dense, weakly cemented, moist	Low to moderate grass and weed growth
-1										
-2		CM	5	119	43					
-3										
-4										
-5									SM: Brown, silty fine sand, medium dense, moist	
-6		CM	13	113	18					
-7										
-8										
-9										
-10									SM: Brown, silty fine to medium sand, very dense, weakly cemented, moist	
-11		CM	9	112	50					
-12										
-13									SM: Brown, silty fine sand with rust mottling, very dense, moist	
-14										
-15										
-16		CM	26	96	50					Boring Terminated at 16.5 feet.

Neil O. Anderson & Assoc., Inc.
902 Industrial Way, Lodi, CA 95240
(209)367-3701 Fax (209)333-8303

LOG OF TEST BORING

BOREHOLE NUMBER

B5

PROJECT NUMBER: **LGE080606**
PROJECT NAME: **South Harney Lane Annexation**
LOCATION: **Lodi, CA**
DRILLING EQUIP.: **Mobile B53 Explorer**

DATE DRILLED: **11-26-08**
GROUND SURFACE ELEVATION: **0.0** Feet

PLATE 6

Depth, ft.	Sample	Sampling Method	Moisture, %	Dry Density, pcf	Blow Counts	Blow Count Histogram	Ground Water	Soil Lithology	Soil Lithology Description	Notes
0									SM: Dark brown, silty fine sand, dense, weakly cemented, moist	Low to moderate grass and weed growth
-1										
-2		CM	4	106	42					
-3										
-4										
-5									SM: Brown, silty fine sand with some white mottling, dense, moist	
-6		CM	17	101	45					
-7										
-8										
-9										
-10									SM: Brown, silty fine to medium sand, very dense, moist	
-11		CM	16	112	50					
-12										
-13										
-14									SM: Olive, silty very fine sand with clay, very dense, moist	
-15										
-16		CM	16	106	50					Boring Terminated at 16.5 feet.

Neil O. Anderson & Assoc., Inc.
902 Industrial Way, Lodi, CA 95240
(209)367-3701 Fax (209)333-8303

LOG OF TEST BORING

BOREHOLE NUMBER

B6

PROJECT NUMBER: **LGE080606**
PROJECT NAME: **South Harney Lane Annexation**
LOCATION: **Lodi, CA**
DRILLING EQUIP.: **Mobile B53 Explorer**

DATE DRILLED: **11-26-08**
GROUND SURFACE ELEVATION: **0.0** Feet

PLATE 7

Depth, ft.	Sample	Sampling Method	Moisture, %	Dry Density, pcf	Blow Counts	Blow Count Histogram	Ground Water	Soil Lithology	Soil Lithology Description	Notes
0									SM: Brown, silty fine sand, medium dense, moist	Low to moderate grass and weed growth
-1										
-2		CM	4	102	14					
-3										
-4										
-5									SM: Brown, silty fine to medium sand, dense, moist	
-6		CM	12	114	32					
-7										
-8										
-9										
-10									SP: Brown, fine to medium sand with silt and rust mottling, very dense, moist	
-11		CM	10	118	50					
-12										
-13									SP: Brown/red mottled, fine to medium sand, very dense, moist	
-14										
-15										
-16		CM	6	111	50					Boring Terminated at 16.5 feet.

Neil O. Anderson & Assoc., Inc.
902 Industrial Way, Lodi, CA 95240
(209)367-3701 Fax (209)333-8303

LOG OF TEST BORING

BOREHOLE NUMBER

B7

PROJECT NUMBER: **LGE080606**
PROJECT NAME: **South Harney Lane Annexation**
LOCATION: **Lodi, CA**
DRILLING EQUIP.: **Mobile B53 Explorer**

DATE DRILLED: **11-26-08**
GROUND SURFACE ELEVATION: **0.0** Feet

PLATE 8

Depth, ft.	Sample	Sampling Method	Moisture, %	Dry Density, pcf	Blow Counts	Blow Count Histogram	Ground Water	Soil Lithology	Soil Lithology Description	Notes
0									SM: Dark brown, silty very fine to fine sand, dense, weakly cemented, moist	Low to moderate grass and weed growth
-1										
-2		CM	3	111	42					
-3										
-4										
-5									SM: Brown, silty fine to medium sand, medium dense, moist	
-6		CM	8	113	10					
-7										
-8										
-9									SM: Brown, silty fine sand with white mottling, very dense, moist	
-10										
-11		CM	14	111	50					Boring Terminated at 11.5 feet.

Neil O. Anderson & Assoc., Inc.
902 Industrial Way, Lodi, CA 95240
(209)367-3701 Fax (209)333-8303

LOG OF TEST BORING

BOREHOLE NUMBER

B8

PROJECT NUMBER: **LGE080606**
PROJECT NAME: **South Harney Lane Annexation**
LOCATION: **Lodi, CA**
DRILLING EQUIP.: **Mobile B53 Explorer**

DATE DRILLED: **11-26-08**
GROUND SURFACE ELEVATION: **0.0** Feet

PLATE 9

Depth, ft.	Sample	Sampling Method	Moisture, %	Dry Density, pcf	Blow Counts	Blow Count Histogram	Ground Water	Soil Lithology	Soil Lithology Description	Notes
0									SM: Dark brown, silty fine sand, dense, moist	Low to moderate grass and weed growth
-1										
-2		CM	3	114	46					
-3										
-4										
-5									SP: Light brown, fine to medium sand with silt, very dense, moist	
-6		CM	5	110	50					
-7										
-8										
-9									SM: Brown, silty very fine sand, very dense, moist	
-10										
-11		CM	16	102	50					Boring Terminated at 11.5 feet.

Neil O. Anderson & Assoc., Inc.
902 Industrial Way, Lodi, CA 95240
(209)367-3701 Fax (209)333-8303

LOG OF TEST BORING

BOREHOLE NUMBER

B9

PROJECT NUMBER: **LGE080606**
PROJECT NAME: **South Harney Lane Annexation**
LOCATION: **Lodi, CA**
DRILLING EQUIP.: **Mobile B53 Explorer**

DATE DRILLED: **11-26-08**
GROUND SURFACE ELEVATION: **0.0** Feet

PLATE 10

Depth, ft.	Sample	Sampling Method	Moisture, %	Dry Density, pcf	Blow Counts	Blow Count Histogram	Ground Water	Soil Lithology	Soil Lithology Description	Notes
0									SM: Brown, silty very fine sand, medium dense to very dense, moist	Low to moderate grass and weed growth
-1										
-2		CM	3	103	26					
-3										
-4										
-5										
-6		CM	12	115	50					
-7										
-8										
-9									SM: Brown/red, silty very fine sand, very dense, moist	
-10										
-11		CM	10	119	50					Boring Terminated at 11.5 feet.

Neil O. Anderson & Assoc., Inc.
902 Industrial Way, Lodi, CA 95240
(209)367-3701 Fax (209)333-8303

LOG OF TEST BORING

BOREHOLE NUMBER

B10

PROJECT NUMBER: **LGE080606**
PROJECT NAME: **South Harney Lane Annexation**
LOCATION: **Lodi, CA**
DRILLING EQUIP.: **Mobile B53 Explorer**

DATE DRILLED: **12-1-08**
GROUND SURFACE ELEVATION: **0.0** Feet

PLATE 11

Depth, ft.	Sample	Sampling Method	Moisture, %	Dry Density, pcf	Blow Counts	Blow Count Histogram	Ground Water	Soil Lithology	Soil Lithology Description	Notes
0									SM: Brown, silty fine sand, dense, moist	Low vegetation
-1										
-2		CM	7	115	43					
-3										
-4										
-5									SM: Brown, silty very fine sand with some cemented chunks, medium dense, moist	
-6		CM	13	101	18					
-7										
-8										
-9									SM: Brown, silty very fine sand with white mottling, very dense, moist	
-10										
-11		CM	8	122	50					Boring Terminated at 11.5 feet.

Neil O. Anderson & Assoc., Inc.
902 Industrial Way, Lodi, CA 95240
(209)367-3701 Fax (209)333-8303

LOG OF TEST BORING

BOREHOLE NUMBER

B11

PROJECT NUMBER: **LGE080606**
PROJECT NAME: **South Harney Lane Annexation**
LOCATION: **Lodi, CA**
DRILLING EQUIP.: **Mobile B53 Explorer**

DATE DRILLED: **12-1-08**
GROUND SURFACE ELEVATION: **0.0** Feet

PLATE 12

Depth, ft.	Sample	Sampling Method	Moisture, %	Dry Density, pcf	Blow Counts	Blow Count Histogram	Ground Water	Soil Lithology	Soil Lithology Description	Notes
0									SM: Brown, silty fine sand, very dense, weakly cemented, moist	Bare ground - unpaved road
-1										
-2		CM	4	104	50					
-3										
-4									ML: Brown, very fine sandy silt, hard, moist	
-5										
-6		CM	11	103	50					pp > 4.5tsf Boring Terminated at 6.5 feet.

UNIFIED SOIL CLASSIFICATION SYSTEM AND BORING LOG SYMBOLS

	DESCRIPTION	MAJOR DIVISIONS		
GW	Well-graded gravels, gravel sand mixtures, little or no fines.	Clean gravels (little or no fines)	Gravel and gravelly soils More than 50% of coarse fraction retained on No. 4 sieve	Coarse grained soils more than 50% larger than No. 200 sieve
GP	Poorly-graded gravels, gravel sand mixtures, little or no fines			
GM	Silty gravels, gravel-sand-clay mixtures	Sands with appreciable amount of fines		
GC	Clayey gravels, gravel-sand-clay mixtures			
SW	Well-graded sands, gravelly sands, little or no fines	Clean sand (little or no fines)	Sands and sandy soils More than 50% of coarse fraction passing No. 4 sieve	
SP	Poorly-graded sands, gravelly sands, little or no fines			
SM	Silty sands, sand-silt mixtures	Sands with appreciable amount of fines		
SC	Clayey sands, sand-silt mixtures			
ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity	Liquid limit less than 50	Silts and clays	Fine grained soils more than 50% smaller than No. 200 sieve
CL	Inorganic clays of low to medium plasticity, gravelly clays, lean clays			
OL	Organic silts and organic silty clays of low plasticity			
MH	Inorganic silts, micacious or diatomaceous fine sand or silty soils	Liquid limit greater than 50	Silts and clays	
CH	Inorganic clays of high plasticity, fat clays			
OH	Organic clays of medium to high plasticity, organic silts			
PT	Peat, humas swamp soils with high organic content	Highly organic soils		

DEPTH (FEET)	SAMPLE	SAMPLE TYPE	TEST TYPE	NOTES
	PS	**Push Sample**	Plasticity Grain Size Analysis Uniformity Coefficient Coefficient of Gradation Coefficient of Consolidation Specific Gravity Shrink/Swell Direct Shear Unconfined Compression Triaxial Compression Pocket Penetrometer Torvane Shear Consolidations	pi gr Cu Cc Cv sg s/s ds uc tx p ts c
	SPT	**Drive Sample**, 2.0" o.d., 1.38" i.d., sampler driven with 140 lb. hammer, 30" drop (Standard Penetration Test, SPT).		
	CM	**Drive Sample**, 2.5" o.d., 1.92" i.d., sampler driven with 140 lb. hammer, 30" drop, with 6" tube liners (California Modified, CM).		
	ES	**Ely Sample**, Used to determine unit weight.		
	HS	**Hand Sampler**, 2.0" o.d. sampler driven with 10 lb. hammer, 18" drop, with 4" tube liners.		
	GS	**Grab Sample**, disturbed sample taken from auger tailings and sealed in plastic bag.		

Plate Number 13

©2008 Neil O. Anderson & Associates, Inc

Appendix E: Environmental Site Assessment Phase I

PHASE I ENVIRONMENTAL SITE ASSESSMENT

HARNEY LANE 30-ACRE SITE

2800 HARNEY LANE

LODI, CALIFORNIA

REPORT PREPARED FOR:

FFLP

OUR PROJECT NUMBER: E07137A

AUGUST 28, 2007

This Phase I ESA Report is only viable for 180 days from the date the contract was signed.

This document was prepared for use only by the client, only for the purposes stated, and within a reasonable time from issuance. Non-commercial, educational, and scientific use of this report by regulatory agencies is regarded as a "fair use" and not a violation of copyright. Regulatory agencies may make additional copies of this document for internal use. Copies may also be made available to the public as required by law. The reprint must acknowledge the copyright and indicate that permission to reprint has been received.

902 Industrial Way ▪ Lodi, CA 95240 ▪ 209.367.3701 ▪ Fax 209.369.4228

©2007 Neil O. Anderson & Associates, Inc.

NEIL O. ANDERSON
AND ASSOCIATES

GEOTECHNICAL
ENVIRONMENTAL
INSPECTIONS & TESTING
LABORATORY SERVICES
POOL ENGINEERING
POST TENSION DESIGN

August 28, 2007
Our Project Number: E07137A

Michael Carouba
FFLP
540 S. Mills Avenue
Lodi, CA 95242

Subject: **Phase I Environmental Site Assessment**
Harney Lane 30-Acre Site, APN: 058-100-03
2800 Harney Lane
Lodi, California

Dear Michael Carouba:

The following report presents the findings and conclusions of our Phase I Environmental Site Assessment conducted at the subject site. The purpose of the report was to provide a Phase I Environmental Site Assessment in accordance with the ASTM E 1527-05 Standard and compliant with the All Appropriate Inquiries (AAI) rule, as indicated in our agreement dated August 2, 2007. Findings for this project have been provided in the body of the report and are listed in the executive summary.

We declare that to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312.

We appreciate the opportunity of working with you on this project and look forward to providing our services in the future. Please contact us if you have any questions.

Sincerely,
NEIL O. ANDERSON & ASSOCIATES, INC.

Tina Cheney

Tina Cheney, Staff Scientist
B.S.

Abigail Racco, Project Scientist
REA I-08321

Registered Environmental Assessor I
ABIGAIL RACCO
REA I - 08321
Expires: 10/08
STATE OF CALIFORNIA

KEY INFORMATON REGARDING YOUR PHASE I ENVIRONMENTAL SITE ASSESSMENT

The Applicability of Phase I Environmental Site Assessments is Limited

Phase I Environmental Site Assessments are written to provide database search results, third party information, observations, and professional opinions regarding a specific site for a specific project. ESA reports do not eliminate all uncertainties about the site and are not exhaustive on record searches. The amount of research depends on the type of property, the expertise and risk tolerance of the client, and the information developed in the course of the inquiry.

This Phase I ESA Report is viable for 180 days from the date the contract was signed. The Report is produced for the client and may not be used by a different user without also satisfying the User's Responsibilities.

➢ *User's Responsibilities*

Based on The ASTM Standard E1527-05 the user is required to perform the following tasks to meet the requirements to qualify for the innocent landowner defense within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

- Review title and judicial records for environmental liens or activity and use limitations (AULs).
- Communicate any specialized knowledge or experience to the environmental professional that is material to recognized environmental conditions in connection to the property.
- Communicate any actual knowledge of environmental liens or AULs encumbering the property to the environmental professional.
- The user shall consider the relationship of the purchase price of the property to the fair market value. If the amount is lower, a written explanation of the lower value is required.
- Any commonly known or reasonably ascertainable information about recognized environmental conditions in connection to the property must be communicated to the environmental professional.

➢ *Contact Your Environmental Professional When in Doubt*

Time, money, and confusion can all be saved by simple explanations at critical moments. Please contact your environmental professional whenever there is any doubt regarding possible environmental conditions or their effect on part or all of any project.

©2007 Neil O. Anderson & Associates, Inc.

PHASE I ENVIRONMENTAL SITE ASSESSMENT
HARNEY LANE 30-ACRE SITE

TABLE OF CONTENTS

1.0 SUMMARY 1

1.1 Executive Summary 1

2.0 INTRODUCTION 2

2.1 Purpose 2
2.2 Detailed Scope-of-Services 2
2.3 Significant Assumptions 3
2.4 Limitations and Exceptions 3
2.5 Special Terms and Conditions 4
2.6 User Reliance 4

3.0 SITE DESCRIPTION 4

3.1 Location and Legal Description 4
3.2 Site and Vicinity General Characteristics 4
3.3 Current Use of the Property 4
3.4 Descriptions of Structures, Roads, Other Improvements on the Site 4

4.0 USER PROVIDED INFORMATION 5

4.1 Title Records 5
4.2 Environmental Liens or Activity and Use Limitations 5
4.3 Specialized Knowledge 5
4.4 Commonly Known or Reasonably Ascertainable Information 5
4.5 Valuation Reduction for Environmental Issues 5
4.6 Owner, Property Manager, and Occupant Information 5
4.7 Reason for Performing Phase I 5

5.0 RECORDS REVIEW 6

5.1 Standard Environmental Record Sources 6
5.2 Environmental Record Findings 8
5.2.1 Subject Property 8
5.2.2 Surrounding Sites 8
5.3 Physical Setting Source(s) 9
5.3.1 Topography 9
5.4 Historical Use Information on the Property and Vicinity 9
5.4.1 Aerial Photographs 9
5.4.2 Sanborn Insurance Company Maps 10
5.4.3 USGS Topographic Maps 10
5.4.4 Zoning/Land Use Records 11

6.0 SITE RECONNAISSANCE 11

6.1 Methodology and Limiting Conditions 11
6.2 Site Visit Checklist 11

©2007 Neil O. Anderson & Associates, Inc.

7.0 INTERVIEWS 12
7.1 Interview with Owner / Site Manager 12
7.2 Interview with Occupents 13
7.3 Interviews with Local Government Officials 13
7.3.1 San Joaquin County Environmental Health 13
7.3.2 Woodbridge Fire Department 13
8.0 FINDINGS 13
9.0 OPINIONS 14
10.0 CONCLUSIONS 14
11.0 DEVIATIONS 14
12.0 ADDITIONAL SERVICES 14
13.0 QUALIFICATION(S) OF ENVIRONMENTAL PROFESSIONALS 15

APPENDICES

Site Maps ..... **Appendix A**
Site Photographs ..... **Appendix B**

On CD:

Historical Research Documentation ..... **Appendix C**
Regulatory Record Documentation ..... **Appendix D**
Interview Documentation ..... **Appendix E**

©2007 Neil O. Anderson & Associates, Inc

PHASE I ENVIRONMENTAL SITE ASSESSMENT

HARNEY LANE 30-ACRE SITE

2800 HARNEY LANE

LODI, CALIFORNIA

OUR PROJECT NUMBER: E07137A

1.0 SUMMARY

Neil O. Anderson & Associates, Inc. (NOA) has been retained by Michael Carouba of FFLP, to conduct a Phase I Environmental Site Assessment for the property located at 13333 North West Lane and 2800 East Harney Lane, Lodi, San Joaquin County, California.

Public Records information was obtained from Federal and State databases, and supplemented by additional regional and local sources to determine whether any recognized environmental conditions known to regulatory agencies exist on the subject property. The search radius for this investigation extended to adjoining properties and properties within a search distance varying from one-eighth to one mile, depending on the information source. The background and past uses of the subject property were investigated. Sources describing the physical characteristics of the property, surrounding properties, and region, including the topography, geologic setting, and groundwater depth and flow direction beneath the subject property, were reviewed. A site reconnaissance of the subject property and its immediate surroundings was completed as well. The data pertinent to this investigation can be found in the body of this document. The primary investigator for this assessment was Tina Cheney, Staff Scientist.

1.1 Executive Summary

The subject property has historically been used for agriculture since 1940 or earlier. Based on the historical agricultural use of the property, it is possible that persistent agricultural chemicals may remain in on-site soils. Typical residual levels of these chemicals may be acceptable for future commercial use.

Stains to concrete and soil were observed near the equipment storage on the property. Although the stains observed on the subject property do not constitute recognized environmental conditions, it is possible that the surface soils have been impacted.

Historic underground storage tanks are located adjacent to the property. Based on the status of the USTs no impact to the subject property is expected from these tanks. One adjacent site was listed on the RCRA and cleaners databases; however, the facility is now closed.

This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property.

©2007 Neil O. Anderson & Associates, Inc.

2.0 INTRODUCTION

2.1 Purpose

Due to the concerns regarding potential liability for toxic hazards, real estate investors need to assess property before purchase to determine if current or past occupants or surrounding land uses could adversely impact property development. Performance of a Phase I Environmental Site Assessment according to ASTM Standard E1527-05 and the All Appropriate Inquiries (AAI) rule satisfies one of the requirements to qualify for landowner liability protections (LLPs) within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

The purpose of this Phase I Environmental Site Assessment is to identify to the extent feasible, pursuant to the processes prescribed by the AAI rule and in ASTM Standard E1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process,* recognized environmental conditions in connection with the property. Additional investigative procedures, designed to meet the due diligence criteria specified by many lending institutions, have been implemented as well. As defined by ASTM[1] E1527-05, §1.1.1, the term "recognized environmental conditions" refers to:

> The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not recognized environmental conditions.

2.2 Detailed Scope-of-Services

The scope of work performed to develop the information contained in this Phase I Environmental report includes:

1. Collecting available information concerning the property and other data pertinent to the specific site;

2. Conducting a site visit to assess physical features, observe adjacent land use, and gather evidence of indiscriminate and/or illegal waste disposal;

[1] American Society for Testing & Materials, www.astm.org

©2007 Neil O. Anderson & Associates, Inc

3. Conducting a review of regulatory agencies' records, contacting appropriate regulatory personnel, and reviewing regulatory files regarding the property in question.

A summary of a Phase I conducted in 1999[2] on the 15 acres of the golfing range was reviewed. No concerns were identified.

This Phase I Environmental Site Assessment Report discusses all work performed by NOA to date with regard to this project. The principal findings are outlined throughout the body of this text and are summarized in the conclusion of this report.

2.3 Significant Assumptions

No significant assumptions were made in the course of this assessment.

2.4 Limitations and Exceptions

This report was compiled as a Phase I Environmental Site Assessment for the subject project. This report contains information and data provided to NOA by several sources. NOA in no way warrants the accuracy or completeness of the information provided to this investigation by those sources.

It should be noted that when an assessment is completed without adequate subsurface exploration or chemical screening of soil and groundwater beneath the site, as in this study, no statement of scientific certainty can be made regarding latent subsurface conditions which may be the result of on-site or off-site sources. The findings and conclusions of this report are not scientific certainties, but rather probabilities based on professional judgment concerning the significance of the data gathered during the course of this investigation. NOA is not able to represent that the site or adjoining land contains no hazardous waste, oil, underground storage tanks, or other latent condition beyond that detected or observed by NOA during the Phase I Environmental Site Assessment. The possibility always exists for contaminants to migrate through surface water, air, or groundwater. An investigation to determine whether or not contaminants are present in the surface and subsurface soil is not within the scope of work required to produce the Phase I Environmental Site Assessment. Chemical analysis of soil and groundwater samples to quantify levels of contamination is also not within the scope of work required to develop a Phase I Environmental Site Assessment.

As discussed in ASTM E1527-05, §4.5.1, it is never possible to eliminate all uncertainty from an investigation of this type:

> No environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with a property, and this practice recognizes reasonable limits of time and cost.

[2] Advanced GeoEnvironmental, Inc., January 18, 1999.

©2007 Neil O. Anderson & Associates, Inc

For this assessment, there were no specific limitations or data gaps that arose.

2.5 Special Terms and Conditions

Our office has not been provided with specific criteria for the development of this report other than a request to evaluate the property in question for possible problems related to toxic or hazardous agents, nor have we been directed to address any specific questions concerning the site. Should there be a need to conduct an investigation into a specific question not addressed in this report, contact our office immediately regarding your concerns.

2.6 User Reliance

This report was prepared for the exclusive use of FFLP. No other person or entity is entitled to rely upon this report without the specific written authorization of NOA. Such reliance is subject to the same limitations, terms, and conditions as the original contract with the client. NOA specifically disclaims any responsibility for any unauthorized use of this report. This Phase I ESA is reliable for 180 days from the date of the signed contract, August 20, 2007.

3.0 SITE DESCRIPTION

3.1 Location and Legal Description

The subject property is located at 2800 Harney Lane, Lodi, San Joaquin County, California. The Assessors Parcel Number is 058-100-03. An address of 13333 North West Lane is also associated with this parcel.

Location maps and site maps of the subject property are attached to this report as **Appendix A**. Photographs of the subject property are attached to this report as **Appendix B**.

3.2 Site and Vicinity General Characteristics

The site is in a residential, agricultural and commercial area.

3.3 Current Use of the Property

The site is currently a golfing range and strawberry field.

3.4 Descriptions of Structures, Roads, Other Improvements on the Site

There is one modular building on the property used as on office and store at the golfing range. The building has a wall unit for heating and cooling. There is a septic system, and irrigation well, and a domestic well on the property. There is a wood structure with no heating and cooling on the strawberry field.

©2007 Neil O. Anderson & Associates, Inc

3.5 Current Uses of the Adjoining Properties

To the north is Harney Lane, and then an apartment complex on the northwest and a shopping center on the northeast. To the east is West Lane then a cherry orchard. To the south is vegetation, then a vineyard. To the west is a vineyard.

4.0 USER PROVIDED INFORMATION

4.1 Title Records

Preliminary chain of title report[3] was provided by the client for NOA's use in preparing this report. No evidence of environmental liens or land use limitations was identified within the report. It should be noted that NOA staff are not title professionals and all such liens and limitations may not be noted in a preliminary report.

4.2 Environmental Liens or Activity and Use Limitations

Mr. Carouba indicated no actual knowledge of environmental liens or activity and use limitations recorded against the subject property.

4.3 Specialized Knowledge

Mr. Carouba indicated that he has no specialized knowledge or experience that is material to recognized environmental conditions in connection with the subject property.

4.4 Commonly Known or Reasonably Ascertainable Information

Mr. Carouba indicated no knowledge of commonly known or reasonably ascertainable information related to the subject property.

4.5 Valuation Reduction for Environmental Issues

Mr. Carouba indicated no knowledge of valuation issues related to the subject property.

4.6 Owner, Property Manager, and Occupant Information

Information provided by the owner of the subject property is discussed in Section 7.1 of this report.

4.7 Reason for Performing Phase I

Mr. Carouba indicated that the Phase I has been requested because they are considering development into retail commercial/office uses.

---

[3] Chicago Title Company, 53101554. August 11, 2006.

©2007 Neil O. Anderson & Associates, Inc

5.0 RECORDS REVIEW

In preparing this report NOA has engaged the services of Environmental Data Resources, Inc. (EDR) of Milford, Connecticut. EDR provided NOA with a list and profile of the recorded sites within the study area that have been identified by the regulatory agencies. EDR's report #2009783, dated August 20, 2007, is included as **Appendix D**. The date of the latest agency version of each database searched by EDR and the date EDR acquired the latest update are noted in the EDR report.

Included in the EDR governmental database search was a list of "orphan sites." These sites were not depicted on the EDR radius map of identified sites. NOA reviewed the "orphan sites" list for properties that may be located within the search radius specified for each governmental database; all such sites have been included in the body of this report.

5.1 Standard Environmental Record Sources

The following standard environmental record sources have been reviewed based on the data provided by EDR:

Database Reviewed by EDR	Search Radius
National Priority List (NPL) Source: U.S. Environmental Protection Agency (US EPA). The NPL database is a subset of CERCLIS (see below) and identifies sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas.	1 mile
Delisted NPL List Source: US EPA. The Delisted NPL database includes sites which have been deleted from the NPL because no further response was appropriate. The EPA uses the criteria of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) to select sites for deletion.	0.5 mile
Comprehensive Environmental Response Compensation and Liability Information System List (CERCLIS) Source: US EPA. The CERCLIS database contains information on potentially hazardous waste sites that have been reported to the US EPA by states, municipalities, private companies, and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are included, proposed for inclusion, or in the screening phase for possible inclusion in the NPL.	0.5 mile
CERCLIS "No Further Remedial Action Planned" (NFRAP) Source: US EPA. The CERC-NFRAP database contains information on sites designated "No Further Remedial Action Planned" which have been removed from the CERCLIS database. NFRAP sites may be sites where no contamination was found following an initial investigation, where remedial action has been completed, or where the contamination was not serious enough to require Federal Superfund action or NPL consideration.	0.5 mile
Corrective Action Report (CORRACTS) Source: US EPA. CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.	1 mile

©2007 Neil O. Anderson & Associates, Inc

Database Reviewed by EDR	Search Radius
Resource Conservation and Recovery Act "Treatment, Storage, and Disposal Facilities" (RCRA-TSDF) Source: US EPA. The RCRA-TSDF database contains basic information on facilities that treat, store, or dispose of hazardous waste as defined by RCRA. This list is contained within the RCRAInfo database.	0.5 mile
RCRA Large Quantity Generators (LQG) and Small Quantity Generators (SQG) Source: US EPA. These lists are contained within the RCRAInfo database. Each site is categorized as one of the following: RCRA-LQG: Facilities that generate more than 1000 kg per month of non-acutely hazardous waste, or more than 1 kg per month of acutely hazardous waste. RCRA-SQG: Facilities that generate between 100 kg and 1000 kg per month of non-acutely hazardous waste.	property and adjoining
Engineering Controls Sites List (US ENG CONTROLS) Source: US EPA. The US ENG CONTROLS database is a list of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or affect human health.	property only
Sites with Institutional Controls (US INST CONTROL) Source: US EPA. The US INST CONTROL database lists sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation case requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.	property only
Federal Emergency Response Notification System (ERNS) Source: U.S. Coast Guard, National Response Center. ERNS database contains information on the reported releases of oil and hazardous substances.	property only
ENVIROSTOR Source: California EPA Department of Toxic Substances Control (DTSC). The ENVIROSTOR database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes NPL sites; State response sites including military facilities and State Superfund; Voluntary Cleanup sites; and school sites.	1 mile
HIST CAL-SITES Source: DTSC. The CAL-SITES database contains potential or confirmed hazardous substance release properties. In 1996, the EPA reevaluated and reduced the number of sites in this database. Cal-Sites is no longer updated and has been replaced by ENVIROSTOR.	1 mile
Spills, Leaks, Investigations, and Cleanups (SLIC) Source: State Water Resources Control Board (SWRCB). The SLIC list includes unauthorized discharges from spills and leaks, other than from underground storage tanks or other regulated sites.	0.5 mile
Solid Waste Information System SWF/LF (SWIS) Source: California Integrated Waste Management Board. The SWIS database contains an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 2004 criteria for solid waste landfills or disposal sites.	0.5 mile
Geotracker's Leaking Underground Fuel Tank Report (LUST) Source: SWRCB. The LUST database contains an inventory of reported leaking underground storage tank incidents.	0.5 mile

©2007 Neil O. Anderson & Associates, Inc

Database Reviewed by EDR	Search Radius
Leaking Underground Storage Tanks on Indian Land (INDIAN LUST) Source: US EPA. The INDIAN LUST database records leaking underground storage tanks on Indian land in Arizona, California, New Mexico, and Nevada.	0.5 mile
Active UST Facilities (UST) Source: SWRCB. The UST list contains an inventory of active underground storage tank facilities gathered from local regulatory agencies.	property and adjoining
Facility Inventory Database (CA FID UST) Source: Cal EPA. The CA FID UST database is a historical listing of active and inactive underground storage tank locations.	property and adjoining
Hazardous Substance Storage Container Database (HIST UST) Source: SWRCB. The HIST UST database is a historical listing of underground storage tanks.	property and adjoining
Underground Storage Tanks on Indian Land (INDIAN UST) Source: US EPA Region 9. The Indian UST database contains an inventory of underground storage tanks on Indian land.	property and adjoining
Deed Restriction Listing (DEED) Source: DTSC. The DEED database contains an inventory of Site Mitigation and Brownfields Reuse Program (SMBRP) facility sites with deed restrictions and Hazardous Waste Management Program (HWMP) facility sites with deed or land use restrictions. The SMBRP list includes active deed restrictions and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The HWMP list includes current or former hazardous waste facilities that have a recorded land use restriction at the local County recorder's office.	property only
Voluntary Cleanup Program Properties (VCP) Source: DTSC. The VCP database contains an inventory of low threat properties with either confirmed or unconfirmed releases in which the project proponents have requested that DTSC oversee investigation and/or cleanup activities.	0.5 mile
US Brownfields Source: US EPA. The US Brownfields database includes properties listed as Cooperative Agreement Recipients and properties addressed by Targeted Brownfields Assessments (TBA). EPA's TBA program is designed to help states, tribes, and municipalities minimize the uncertainties of contamination often associated with brownfields. States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the US EPA.	1 mile

5.2 Environmental Record Findings

5.2.1 Subject Property

The subject property was not listed on the databases searched.

5.2.2 Surrounding Sites

The following facilities in the vicinity of the subject property were listed on one or more of the Standard Environmental Record Sources:

©2007 Neil O. Anderson & Associates, Inc

Facility Name	Location (miles)	Source	Comments
Valley Landscaping 1320 East Harney Lane	¼ - ½ W	SWL/LF	According to the San Joaquin County Parcel Maps, this site is over ½ mile to the west. Therefore no impact to the site in anticipated from this site.
Tokay Cleaners 2525 S. Hutchins Street	0-1/8 N	Cleaners, RCRA,	According to the EDR this site is a small quantity waste generator. One violation has occurred, and compliance was achieved in 1988. This site is no longer active as a cleaner.
Tokay Market Food & Liquor / Star Market #2 2525 S. Hutchins Street	0-1/8 N	UST, HIST UST, Ca Fid	According to the EDR there were three 10,000 gallon tanks of fuel at this site. The tanks are now closed.
Felix Costa 13160 N. West Lane	0-1/8 E	HIST UST	According to the EDR this 500 gallon farm tank of regular fuel was installed in 1960. This site is located across West Lane from the property. There are no reports of leaks.
Richards Ranch Elementary School Blue Jay Way/Culbertson	½-1 E	Envirostor	According to the EDR this facility status is stated as "No Further Action".
Southwest Lodi Elementary School 1041/1171 Harney Lane	½-1 W	Envirostor	According to the EDR this facility status is stated as "No Further Action".

5.3 Physical Setting Source(s)

5.3.1 Topography

According to the most recent USGS Topographic map covering the subject property and vicinity, the subject property is approximately 40 feet above mean sea level in an area which slopes down to the west at a rate of 7 feet (vertical) per mile (horizontal).[4]

5.4 Historical Use Information on the Property and Vicinity

5.4.1 Aerial Photographs

Aerial photographs of the subject property provided by San Joaquin County Surveyors office were reviewed as part of this investigation:

Date	Photo Description
1940	The subject property is agricultural land. There is a road to the north and east. The surrounding properties are agricultural.

[4] US Geological Survey, 1979, 7.5' Topographic Map of Lodi South, California, Quadrangle.

©2007 Neil O. Anderson & Associates, Inc

Date	Photo Description
1952	No significant changes are apparent from the previous photograph.
1963	No significant changes are apparent from the previous photograph.
1975	No significant changes are apparent from the previous photograph.
1983	To the north is a housing development and small strip mall. No other changes are apparent from the previous photograph.

These photos are included in **Appendix C**.

5.4.2 Sanborn Insurance Company Maps

An attempt was made by EDR to obtain Sanborn Insurance Company maps for the period covering the years 1860 through the present in order to determine what types of activities were conducted on the subject property and on adjoining properties. No Sanborn maps were found.

5.4.3 USGS Topographic Maps

Topographic maps of the subject property on file at NOA were reviewed as part of this investigation:

Date	Scale	Quadrangle	Map Description
1947	1:50,000	Lodi South	The subject property is vacant. A road is to the north and east. Scattered structures are in the vicinity.
1953	1:24,000	Lodi South	Harney Lane is depicted to the north and West Lane to the east. No significant changes are apparent from the previous map.
1968	1:24,000	Lodi South	A well is depicted on the subject property. No other changes are apparent from the previous map.
1976	1:24,000	Lodi South	No significant changes are apparent from the previous map.

These maps are included in **Appendix C**.

©2007 Neil O. Anderson & Associates, Inc

5.4.4 Zoning/Land Use Records

According to the San Joaquin County Community Development Department web site,[5] the subject property is zoned AG-40, general agriculture with a minimum parcel size of 40 acres. This zoning designation "is established to preserve agricultural lands for the continuation of commercial agricultural enterprises."

6.0 SITE RECONNAISSANCE

A visual reconnaissance of the subject property was conducted on August 22, 2007 by Tina Cheney and Tamara Woods. A site map and photographs of the subject property are attached to this report in **Appendices A and B**.

6.1 Methodology and Limiting Conditions

The periphery of the subject property and structure on the property were inspected. A detailed inspection was conducted of all major site features visible from the periphery of the property. The interior common areas of the structure were observed.

6.2 Site Visit Checklist

Observations made during the site visit are summarized in the following table:

	Site Visit Observations
Subject Property	
Current Use of Property	The western 15 acres is a golfing range with an office, parking lot, and storage. The eastern 15 acres is an agricultural field and seasonal vegetation.
Evidence of Past Uses of Property?	Agriculture
Potable Water Source	Domestic Well, Irrigation Well
Sewage Disposal Source	Septic System
Odors?	Smell of paint thinner in maintenance shop on golf range.
Pools of Liquid?	None observed
Electric or hydraulic equipment likely to contain PCBs?	Two pole-mounted transformers were observed along the eastern property line. Two pole-mounted transformers were observed along the southern property line. Three-pole mounted transformers were observed along the western property line. Non-PBC stickers were observed on the transformers. No leaks were observed.
Storage tanks?	None observed

[5] San Joaquin County Community Development Department, www.co.san-joaquin.ca.us.

©2007 Neil O. Anderson & Associates, Inc

	Site Visit Observations
Drums or other containers?	Eight containers of Turfplex were in the storage area of the golf range. Two containers of antifreeze and a container of fertilizer were observed near the strawberry field.
Interior Observations	
Heating/cooling system?	Wall unit for air conditioning—electric.
Stains or corrosion?	None observed
Drains or sumps?	None observed
Exterior Observations	
Pits, Ponds, Lagoons?	None observed
Stained soil or pavement?	Pavement stained in places. Soil stained in areas by equipment storage. Staining in debris pile near containers of antifreeze and motor oil on strawberry field.
Solid waste?	There were piles of dirt on the property. Mr. Carouba indicated that the dirt came from a residence on Mills Avenue, where a pool was installed. Piles of trash associated with the strawberry field were observed. An RV with significant damage was parked along the eastern side of the golfing range. A pile of trash and tires were west of the RV.
Waste water discharge?	None observed
Wells or septic systems?	Wells and septic system on property.
Vicinity Observations	
Topography of property and vicinity	Relatively flat
Current use of adjoining properties	To the north is Harney Lane, and then an apartment complex on the northwest and a shopping center on the northeast. To the east is West Lane then a cherry orchard. To the south is vegetation, then a vineyard. To the west is a vineyard.
Evidence of past uses?	Past agricultural use
Current land uses in area	Residential, commercial, and agricultural
Evidence of past uses?	Past agricultural use

7.0 INTERVIEWS

7.1 Interview with Owner / Site Manager

An attempt has been made to obtain historical as well as current information relative to the subject property from the property owner or key site manager of the property. The objective of the interview process is to obtain any information indicating recognized environmental

©2007 Neil O. Anderson & Associates, Inc

conditions in connection with the proposed project site. An Environmental Questionnaire and Disclosure Statement was sent to Michael Carouba by NOA with a request to forward the appropriate section to the owner or key site manager of the subject property for completion.

Mr. Carouba filled out the questionnaire as a limited partner of FFLP. He indicated that FFLP has owned the property since 1987. Fifteen acres is used for a golf range, built in 1995 and fifteen acres is a strawberry field. The completed questionnaire is included in **Appendix E**.

7.2 Interview with Occupents

Mr. Dailene Moon was contacted[6] regarding the driving range. He indicated that he recently started working there, and doesn't know of any environmental concerns or spills located on the property.

7.3 Interviews with Local Government Officials

7.3.1 San Joaquin County Environmental Health

The San Joaquin County Environmental Health Department was contacted to determine whether any records are on file at that agency related to storage tanks, hazardous materials handling, or hazardous materials spills on the subject property. According to Diane Martinez of that agency, no records are on file for the subject property addresses.[7]

Well and septic system permits were searched on August 21, 2007. A new irrigation well was installed on the property in 1978. In February 1995 a domestic well, pump, and septic syetem were installed on the property.

7.3.2 Woodbridge Fire Department

Woodbrige Fire Prevention was contacted in an attempt to interview a duty officer regarding any hazardous materials incidents on or in the vicinity of the subject property. According to department staff[8] no incidents came to mind in that area.

8.0 FINDINGS

- The subject property has historically been used for agriculture since 1940 or earlier.
- One septic system and two wells are located on the property.
- Stains to concrete and soil were observed near the equipment storage on the property. Staining was observed in a debris pile on the strawberry field portion of the property.
- Piles of dirt were located on the property.
- Historic underground storage tanks are located adjacent to the property.

---

[6] Personal Communication, August 28, 2007
[7] Personal Communication, August 21, 2007.
[8] Personal Communication, August 23, 2007.

©2007 Neil O. Anderson & Associates, Inc

- One adjacent site was listed on the RCRA and cleaners databases; however, the facility is now closed.

9.0 OPINIONS

- Based on the historical agricultural use of the property, it is possible that persistent agricultural chemicals may remain in on-site soils. Typical residual levels of these chemicals may be acceptable for future commercial use, depending on the clients risk tolerance.
- Stains to concrete and soil were observed near the equipment storage and debris pile on the property. Although the stains observed on the subject property do not constitute recognized environmental conditions, it is possible that the surface soils have been impacted.
- The dirt piles came from a residence. No contamination is expected to come from the dirt piles.
- Based on the status of the UST's no impact to the subject property is expected from these tanks.

10.0 CONCLUSIONS

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-05 of 2800 Harney Lane, Lodi, San Joaquin County, California, the subject property. Any exceptions to, or deletions from, this practice are described in the Limitations Section of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property.

11.0 DEVIATIONS

No deviations have been taken from this standard.

12.0 ADDITIONAL SERVICES

No additional services were provided.

©2007 Neil O. Anderson & Associates, Inc

13.0 QUALIFICATION(S) OF ENVIRONMENTAL PROFESSIONALS

Tina Cheney

Professional Experience:
Neil O. Anderson & Associates 2004 – Present

Education:
B.S., Brigham Young University, Provo, UT
A.A, Ricks College, Rexburg, ID

Abigail Racco, REA I

Professional Experience:
Neil O. Anderson & Associates 2002 – Present

Education:
B.A., Chemistry, Columbia University, NY

©2007 Neil O. Anderson & Associates, Inc

The EDR Radius Map™ Report

SWC of Harney Lane & West Lane
13333 N. West Lane
Lodi, CA 95242

Inquiry Number: 2009783.1s

August 20, 2007

EDR® Environmental Data Resources Inc

The Standard in Environmental Risk Information

440 Wheelers Farms Road
Milford, Connecticut 06461

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	6
Orphan Summary	19
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

GeoCheck - Not Requested

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2007 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

13333 N. WEST LANE
LODI, CA 95242

COORDINATES

Latitude (North):	38.099900 - 38˚ 5' 59.6''
Longitude (West):	121.281000 - 121˚ 16' 51.6''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	650727.9
UTM Y (Meters):	4218088.5
Elevation:	41 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	38121-A3 LODI SOUTH, CA
Most Recent Revision:	1976

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

FEDERAL RECORDS

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
Delisted NPL..... National Priority List Deletions
NPL LIENS..... Federal Superfund Liens
CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System
CERC-NFRAP..... CERCLIS No Further Remedial Action Planned
CORRACTS..... Corrective Action Report
RCRA-TSDF..... Resource Conservation and Recovery Act Information
RCRA-LQG..... Resource Conservation and Recovery Act Information
ERNS..... Emergency Response Notification System

EXECUTIVE SUMMARY

HMIRS	Hazardous Materials Information Reporting System
US ENG CONTROLS	Engineering Controls Sites List
US INST CONTROL	Sites with Institutional Controls
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
US BROWNFIELDS	A Listing of Brownfields Sites
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
ODI	Open Dump Inventory
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
SSTS	Section 7 Tracking Systems
LIENS 2	CERCLA Lien Information
RADINFO	Radiation Information Database
US CDL	Clandestine Drug Labs
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
ICIS	Integrated Compliance Information System
LUCIS	Land Use Control Information System
DOT OPS	Incident and Accident Data
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
MINES	Mines Master Index File
FINDS	Facility Index System/Facility Registry System
RAATS	RCRA Administrative Action Tracking System

STATE AND LOCAL RECORDS

HIST Cal-Sites	Historical Calsites Database
CA BOND EXP. PLAN	Bond Expenditure Plan
SCH	School Property Evaluation Program
Toxic Pits	Toxic Pits Cleanup Act Sites
CA WDS	Waste Discharge System
WMUDS/SWAT	Waste Management Unit Database
Cortese	"Cortese" Hazardous Waste & Substances Sites List
SWRCY	Recycler Database
LUST	Geotracker's Leaking Underground Fuel Tank Report
SLIC	Statewide SLIC Cases
AST	Aboveground Petroleum Storage Tank Facilities
LIENS	Environmental Liens Listing
CHMIRS	California Hazardous Material Incident Report System
Notify 65	Proposition 65 Records
DEED	Deed Restriction Listing
VCP	Voluntary Cleanup Program Properties
WIP	Well Investigation Program Case List
CDL	Clandestine Drug Labs
RESPONSE	State Response Sites
HAZNET	Facility and Manifest Data
EMI	Emissions Inventory Data
HAULERS	Registered Waste Tire Haulers Listing

TRIBAL RECORDS

INDIAN RESERV	Indian Reservations

EXECUTIVE SUMMARY

INDIAN LUST Leaking Underground Storage Tanks on Indian Land
INDIAN UST Underground Storage Tanks on Indian Land

EDR PROPRIETARY RECORDS

Manufactured Gas Plants EDR Proprietary Manufactured Gas Plants

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

FEDERAL RECORDS

RCRAInfo: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System(RCRIS). The database includes selective information on sites which generate, transport, store , treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month Large quantity generators generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-SQG list, as provided by EDR, and dated 06/13/2006 has revealed that there is 1 RCRA-SQG site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
TOKAY CLEANERS	***2525 S HUTCHINS***	***0 - 1/8 N***	***A5***	***9***

STATE AND LOCAL RECORDS

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, and dated 06/11/2007 has revealed that there is 1 SWF/LF site within approximately 0.5 miles of the target property.

EXECUTIVE SUMMARY

Lower Elevation	Address	Dist / Dir	Map ID	Page
VALLEY LANDSCAPING	1320 EAST HARNEY LANE	1/4 - 1/2 W	7	12

CA FID: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 2 CA FID UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
FRANK LASICK	***790 W HARNEY LN***	***0 - 1/8 N***	***1***	***6***
STAR MARKET #2	***2525 S HUTCHINS***	***0 - 1/8 N***	***A6***	***10***

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 07/10/2007 has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
TOKAY MARKET FOOD & LIQUOR	2525 S HUTCHINS ST	0 - 1/8 N	A3	7

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 2 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
FELIX J. COSTA	13160 N WEST LN	0 - 1/8 E	2	6
STAR MARKET #2	2525 S HUTCHINS ST	0 - 1/8 N	A4	8

SWEEPS: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1980's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 2 SWEEPS UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
FRANK LASICK	***790 W HARNEY LN***	***0 - 1/8 N***	***1***	***6***
STAR MARKET #2	***2525 S HUTCHINS***	***0 - 1/8 N***	***A6***	***10***

EXECUTIVE SUMMARY

DRYCLEANERS: A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaners' agents; linen supply; coin-operated laundries and cleaning; drycleaning plants except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

A review of the CLEANERS list, as provided by EDR, and dated 07/31/2007 has revealed that there is 1 CLEANERS site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
TOKAY CLEANERS	***2525 S HUTCHINS***	***0 - 1/8 N***	***A5***	***9***

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 05/29/2007 has revealed that there are 2 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
RICHARDS RANCH ELEMENTARY SCHO	***BLUE JAY WAY/CULBERTSON***	***1/2 - 1 E***	***8***	***13***
Facility Status: No Further Action				

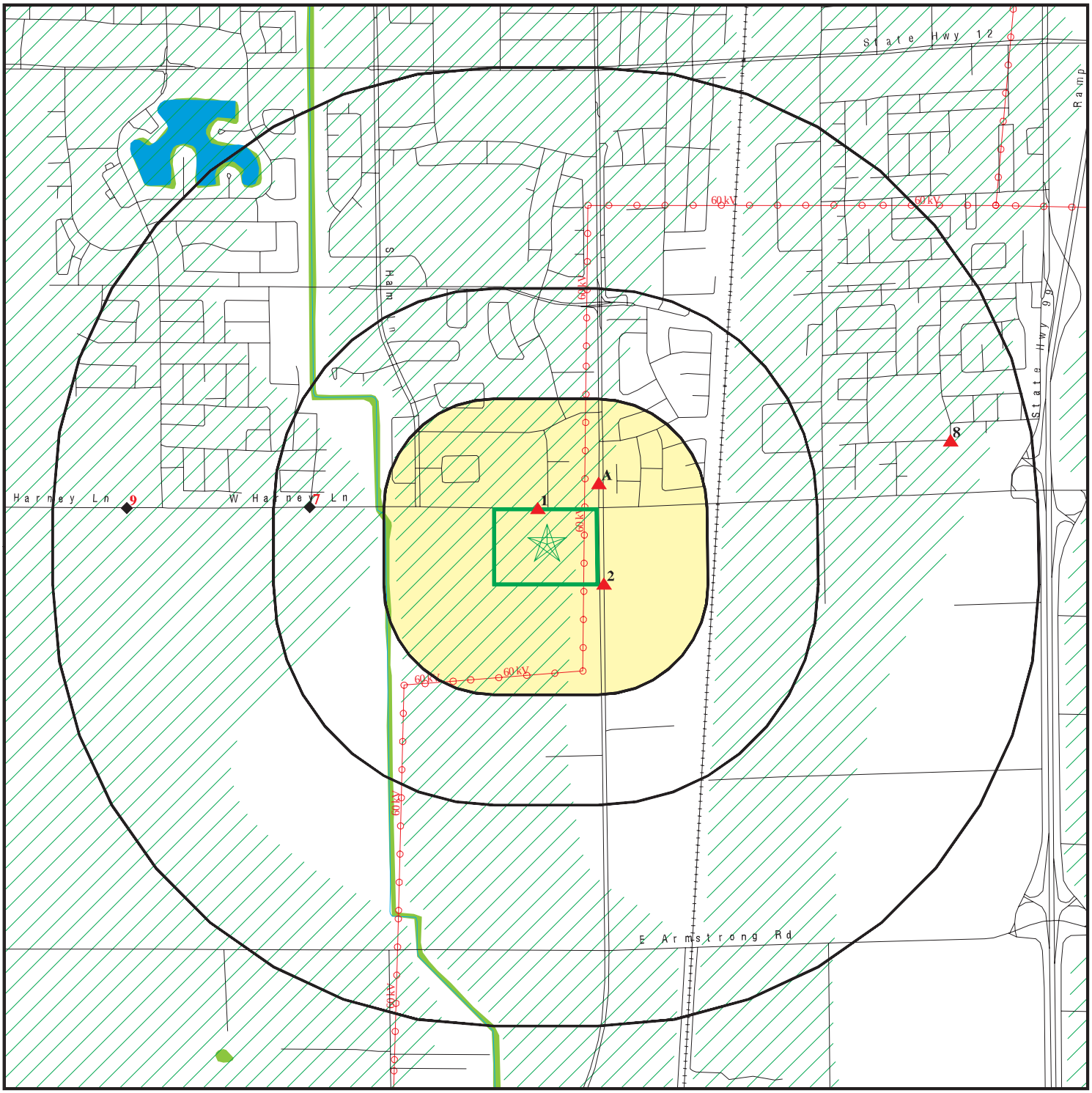
Lower Elevation	Address	Dist / Dir	Map ID	Page
SOUTHWEST LODI ELEMENTARY SCHO	***1041/1171 EAST HARNEY L***	***1/2 - 1 W***	***9***	***16***
Facility Status: No Further Action				

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
W. GALEN JOHNSON	CA FID UST, SWEEPS UST
MOKELUMNE RURAL FIRE DEPT	SWEEPS UST
HARNEY LANE AND BECKMAN RD EAST OF	CHMIRS, SLIC
WHISKEY SLOUGH ROAD 1/8 MILE NORTH OF CITY OF HOLT	CHMIRS, SLIC
CHARLEY JACOBS	LUST, Cortese
PG&E GAS PLANT LODI	CERC-NFRAP
VICTOR MEATS	LUST
HARRIS RANCH	UST
VICTOR FINE FOODS	UST, CA WDS
COUNTRYSIDE MINI MART & DELI	FINDS, UST
BECKMAN, ES & JM TRS	UST
CHARLES LEWIS	UST
CLARK BUSINESS PROPERTIES	UST
DIEDE CONSTRUCTION	UST
FRASCH, EMMA*	UST
HARRIS RANCH	UST
MALIK, NUSRAT NASIM	UST
MILLER, ELLIS	UST
OAK RIDGE WINERY, LLC	UST
PACIFIC GROWERS NURSERY	UST
T&T TRUCKING INC	UST
VICTOR FINE FOODS	UST
W GALEN JOHNSON	UST
ZECHEISTER, JERRY	UST
CHARLES JACOBS	UST
MARTINI'S BAIT & TACKLE	UST
PHILLIPS FARMS	UST
R A RIPKEN GRAPE NURSERY INC	UST
SCHNABEL, CHARLES	UST
WELL 16	HIST UST
FRANK C. ALEGRE TRUCKING INC.	AST
PLASTAKET MGF CO INC	RCRA-SQG, HAZNET
PACIFIC BELL	RCRA-SQG, FINDS
BETWEEN TURNER & HARNEY RDS	ERNS
14900 WEST HWY 12	ERNS
14900 WEST HWY 12	ERNS
14900 WEST HWY 12	ERNS
UNION PACIFIC RAILROAD COMPANY **	SLIC
VICTOR FINE FOODS	SLIC

OVERVIEW MAP - 2009783.1s



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

Power transmission lines

Oil & Gas pipelines

100-year flood zone

500-year flood zone

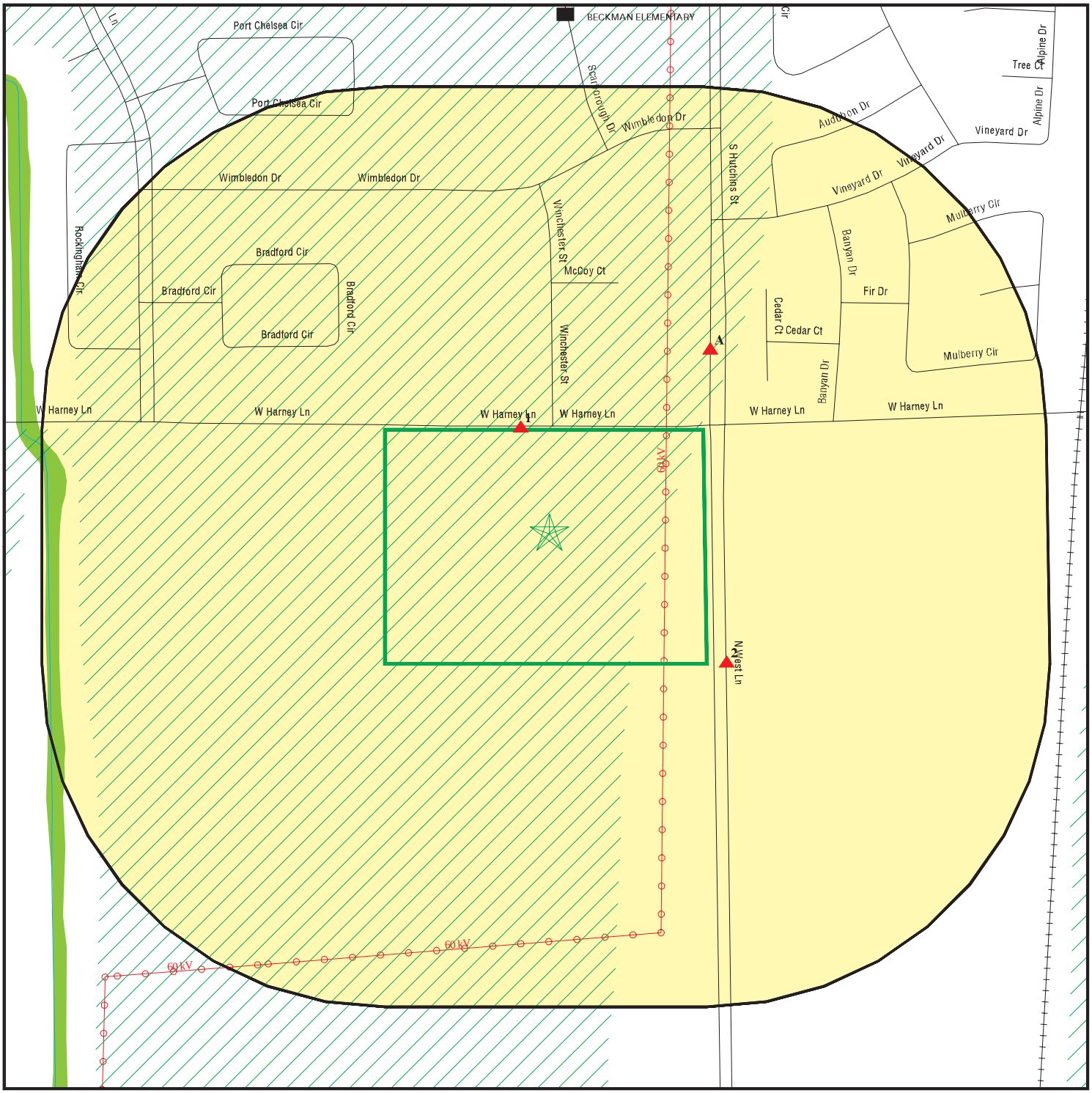
National Wetland Inventory

Areas of Concern

SITE NAME: SWC of Harney Lane & West Lane	CLIENT: Neil O. Anderson Associates, Inc.
ADDRESS: 13333 N. West Lane Lodi CA 95242	CONTACT: Tina Cheney INQUIRY #: 2009783.1s
LAT/LONG: 38.0999 / 121.2810	DATE: August 20, 2007 7:02 pm

Copyright © 2007 EDR, Inc. © 2007 Tele Atlas Rel. 07/2006.

DETAIL MAP - 2009783.1s



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

Power transmission lines

Oil & Gas pipelines

100-year flood zone

500-year flood zone

National Wetland Inventory

Areas of Concern

N

SITE NAME: SWC of Harney Lane & West Lane	CLIENT: Neil O. Anderson Associates, Inc.
ADDRESS: 13333 N. West Lane Lodi CA 95242	CONTACT: Tina Cheney INQUIRY #: 2009783.1s
LAT/LONG: 38.0999 / 121.2810	DATE: August 20, 2007 7:02 pm

Copyright © 2007 EDR, Inc. © 2007 Tele Atlas Rel. 07/2006.

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL RECORDS								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
NPL LIENS		TP	NR	NR	NR	NR	NR	0
CERCLIS		0.500	0	0	0	NR	NR	0
CERC-NFRAP		0.500	0	0	0	NR	NR	0
CORRACTS		1.000	0	0	0	0	NR	0
RCRA TSD		0.500	0	0	0	NR	NR	0
RCRA Lg. Quan. Gen.		0.250	0	0	NR	NR	NR	0
RCRA Sm. Quan. Gen.		0.250	1	0	NR	NR	NR	1
ERNS		TP	NR	NR	NR	NR	NR	0
HMIRS		TP	NR	NR	NR	NR	NR	0
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
ODI		0.500	0	0	0	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
LIENS 2		TP	NR	NR	NR	NR	NR	0
RADINFO		TP	NR	NR	NR	NR	NR	0
CDL		TP	NR	NR	NR	NR	NR	0
HIST FTTS		TP	NR	NR	NR	NR	NR	0
ICIS		TP	NR	NR	NR	NR	NR	0
LUCIS		0.500	0	0	0	NR	NR	0
DOT OPS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
STATE AND LOCAL RECORDS								
Hist Cal-Sites		1.000	0	0	0	0	NR	0
CA Bond Exp. Plan		1.000	0	0	0	0	NR	0
SCH		0.250	0	0	NR	NR	NR	0
Toxic Pits		1.000	0	0	0	0	NR	0
State Landfill		0.500	0	0	1	NR	NR	1
CA WDS		TP	NR	NR	NR	NR	NR	0
WMUDS/SWAT		0.500	0	0	0	NR	NR	0
Cortese		0.500	0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SWRCY		0.500	0	0	0	NR	NR	0
LUST		0.500	0	0	0	NR	NR	0
CA FID UST		0.250	2	0	NR	NR	NR	2
SLIC		0.500	0	0	0	NR	NR	0
UST		0.250	1	0	NR	NR	NR	1
HIST UST		0.250	2	0	NR	NR	NR	2
AST		0.250	0	0	NR	NR	NR	0
LIENS		TP	NR	NR	NR	NR	NR	0
SWEEPS UST		0.250	2	0	NR	NR	NR	2
CHMIRS		TP	NR	NR	NR	NR	NR	0
Notify 65		1.000	0	0	0	0	NR	0
DEED		0.500	0	0	0	NR	NR	0
VCP		0.500	0	0	0	NR	NR	0
DRYCLEANERS		0.250	1	0	NR	NR	NR	1
WIP		0.250	0	0	NR	NR	NR	0
CDL		TP	NR	NR	NR	NR	NR	0
RESPONSE		1.000	0	0	0	0	NR	0
HAZNET		TP	NR	NR	NR	NR	NR	0
EMI		TP	NR	NR	NR	NR	NR	0
ENVIROSTOR		1.000	0	0	0	2	NR	2
HAULERS		TP	NR	NR	NR	NR	NR	0
TRIBAL RECORDS								
INDIAN RESERV		1.000	0	0	0	0	NR	0
INDIAN LUST		0.500	0	0	0	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
EDR PROPRIETARY RECORDS								
Manufactured Gas Plants		1.000	0	0	0	0	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID Direction Distance Distance (ft.) Elevation	Site	Database(s)	EDR ID Number EPA ID Number
1 **North** **< 1/8** **12 ft.**	**FRANK LASICK** **790 W HARNEY LN** **LODI, CA 95240**	**CA FID UST** **SWEEPS UST**	**S101593255** **N/A**

Relative:
Higher

Actual:
41 ft.

CA FID UST:

Facility ID:	39003574
Regulated By:	UTNKI
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	Not reported
Mail To:	Not reported
Mailing Address:	790 E HARNEY LN
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LODI 95240
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Inactive

SWEEPS UST:

Status:	Not reported
Comp Number:	1915
Number:	Not reported
Board Of Equalization:	44-032226
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	39-000-001915-000001
Actv Date:	Not reported
Capacity:	1000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	LEADED
Number Of Tanks:	1

---

2 **East** **< 1/8** **76 ft.**	**FELIX J. COSTA** **13160 N WEST LN** **LODI, CA 95240**	**HIST UST**	**U001604313** **N/A**

Relative:
Higher

Actual:
42 ft.

HIST UST:

Region:	STATE
Facility ID:	00000043212
Tank Num:	001
Container Num:	1
Year Installed:	1960
Tank Capacity:	00000500
Facility Type:	Other
Other Type:	FARM
Total Tanks:	0001
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR

FELIX J. COSTA (Continued) **U001604313**

Tank Construction: Not reported
Leak Detection: Visual
Contact Name: Not reported
Telephone: 2093683670
Owner Name: FELIX J. COSTA
Owner Address: 13160 N. WEST LANE
Owner City,St,Zip: LODI, CA 95240

A3
North
< 1/8
314 ft.

Relative:
Higher

Actual:
42 ft.

TOKAY MARKET FOOD & LIQUOR **UST** **U004025043**
2525 S HUTCHINS ST **N/A**
LODI, CA 95240

Site 1 of 4 in cluster A

UST SAN JOAQUIN:

Region: SJ
Facility Id: FA0000894
Mail Address: 2525 S HUTCHINS #12
Mail Care of: HUNDAL & SHERGILL PARTNERS
Mail City,St,Zip: LODI, CA 95240
Tank Rec ID: TA0133701
Tank Number: 1
Tank Status: CLOSED
Tank Capacity: 10000
Product Type: 1A
Product Type Desc: REGULAR UNLEADED
Program Element: 2380

Region: SJ
Facility Id: FA0000894
Mail Address: 2525 S HUTCHINS #12
Mail Care of: HUNDAL & SHERGILL PARTNERS
Mail City,St,Zip: LODI, CA 95240
Tank Rec ID: TA0133702
Tank Number: 2
Tank Status: CLOSED
Tank Capacity: 10000
Product Type: 1A
Product Type Desc: REGULAR UNLEADED
Program Element: 2380

Region: SJ
Facility Id: FA0000894
Mail Address: 2525 S HUTCHINS #12
Mail Care of: HUNDAL & SHERGILL PARTNERS
Mail City,St,Zip: LODI, CA 95240
Tank Rec ID: TA0133703
Tank Number: 3
Tank Status: CLOSED
Tank Capacity: 10000
Product Type: 1A
Product Type Desc: REGULAR UNLEADED
Program Element: 2380

Map ID Direction Distance Distance (ft.) Elevation	Site	Database(s)	EDR ID Number EPA ID Number
A4 **North** **< 1/8** **314 ft.** **Relative:** **Higher** **Actual:** **42 ft.**	**STAR MARKET #2** **2525 S HUTCHINS ST** **LODI, CA 95240** **Site 2 of 4 in cluster A**	**HIST UST**	**U001604519** **N/A**

HIST UST:

Region:	STATE
Facility ID:	00000044597
Tank Num:	001
Container Num:	01
Year Installed:	1984
Tank Capacity:	00010000
Facility Type:	Other
Other Type:	CONVENIENCE STORE
Total Tanks:	0003
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Tank Construction:	1/4 inches
Leak Detection:	Stock Inventor
Contact Name:	BILL STEWART
Telephone:	2093680608
Owner Name:	C.R. STAR INC.
Owner Address:	2525 SO. HUTCHINS
Owner City,St,Zip:	LODI, CA 95240

Region:	STATE
Facility ID:	00000044597
Tank Num:	002
Container Num:	02
Year Installed:	Not reported
Tank Capacity:	00010000
Facility Type:	Other
Other Type:	CONVENIENCE STORE
Total Tanks:	0003
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Tank Construction:	1/4 inches
Leak Detection:	Stock Inventor
Contact Name:	BILL STEWART
Telephone:	2093680608
Owner Name:	C.R. STAR INC.
Owner Address:	2525 SO. HUTCHINS
Owner City,St,Zip:	LODI, CA 95240

Region:	STATE
Facility ID:	00000044597
Tank Num:	003
Container Num:	03
Year Installed:	1984
Tank Capacity:	00010000
Facility Type:	Other
Other Type:	CONVENIENCE STORE
Total Tanks:	0003
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Tank Construction:	1/4 inches
Leak Detection:	Stock Inventor
Contact Name:	BILL STEWART

STAR MARKET #2 (Continued) **U001604519**

Telephone: 2093680608
Owner Name: C.R. STAR INC.
Owner Address: 2525 SO. HUTCHINS
Owner City,St,Zip: LODI, CA 95240

A5 North < 1/8 314 ft. | **TOKAY CLEANERS** | **RCRA-SQG FINDS CLEANERS** | **1000160846 CAD981964240**

2525 S HUTCHINS
LODI, CA 95240

Relative: Higher

Actual: 42 ft.

Site 3 of 4 in cluster A

RCRAInfo:
Owner: JERRY DYONS
(415) 555-1212
EPA ID: CAD981964240

Contact: Not reported

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: Violations exist

Regulation Violated: Not reported
Area of Violation: GENERATOR-LAND BAN REQUIREMENTS
Date Violation Determined: 08/19/1988
Actual Date Achieved Compliance: 09/14/1988

There are 1 violation record(s) reported at this site:

Evaluation	Area of Violation	Date of Compliance
Other Evaluation	GENERATOR-LAND BAN REQUIREMENTS	19880914

FINDS:
Other Pertinent Environmental Activity Identified at Site

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

CLEANERS:
EPA Id: CAD981964240
NAICS Code: Not reported
NAICS Description: Not reported
SIC Code: Not reported
Create Date: 7/3/1987
Facility Active: No
Inactive Date: 6/30/1997

TOKAY CLEANERS (Continued) **1000160846**

Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 2525 S HUTCHINS ST
Mailing Address 2: Not reported
Mailing State: CA
Mailing Zip: 952407146
Region Code: 1
Owner Name: MARITZA LIMA
Owner Address: --
Owner Address 2: Not reported
Owner Telephone: 0
Contact Name: MARITZA LIMS
Contact Address: INACTIVE PER VQ97 NK
Contact Address 2: Not reported
Contact Telephone: 2093699444
SIC Description: Not reported

EPA Id: CAL000095470
NAICS Code: Not reported
NAICS Description: Not reported
SIC Code: Not reported
Create Date: 7/14/1993
Facility Active: No
Inactive Date: 6/30/1998
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 2525 S HUTCHINS ST STE 9A
Mailing Address 2: Not reported
Mailing State: CA
Mailing Zip: 952407146
Region Code: 1
Owner Name: TOKAY CLEANERS
Owner Address: 2525 S HUTCHINS ST STE 9A
Owner Address 2: Not reported
Owner Telephone: 0
Contact Name: M LIMA
Contact Address: INACT PER NONDELIVERABLE VQ98 NK
Contact Address 2: Not reported
Contact Telephone: --
SIC Description: Not reported

A6 **STAR MARKET #2** **CA FID UST** **S101625737**
North **2525 S HUTCHINS** **SWEEPS UST** **N/A**
< 1/8 **LODI, CA 95240**
314 ft.

Site 4 of 4 in cluster A

Relative:
Higher

Actual:
42 ft.

CA FID UST:
Facility ID: 39001646
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2093680608
Mail To: Not reported
Mailing Address: 2525 S HUTCHINS
Mailing Address 2: Not reported
Mailing City,St,Zip: LODI 95240

STAR MARKET #2 (Continued) **S101625737**

Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: A
Comp Number: 1337
Number: 9
Board Of Equalization: 44-024654
Ref Date: 10-07-91
Act Date: 10-07-91
Created Date: 06-21-88
Tank Status: A
Owner Tank Id: 01
Swrcb Tank Id: 39-000-001337-000001
Actv Date: 09-07-88
Capacity: 10000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: 3

Status: A
Comp Number: 1337
Number: 9
Board Of Equalization: 44-024654
Ref Date: 10-07-91
Act Date: 10-07-91
Created Date: 06-21-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 39-000-001337-000002
Actv Date: 09-07-88
Capacity: 10000
Tank Use: M.V. FUEL
Stg: P
Content: LEADED
Number Of Tanks: Not reported

Status: A
Comp Number: 1337
Number: 9
Board Of Equalization: 44-024654
Ref Date: 10-07-91
Act Date: 10-07-91
Created Date: 06-21-88
Tank Status: A
Owner Tank Id: 03
Swrcb Tank Id: 39-000-001337-000003
Actv Date: 09-07-88
Capacity: 10000
Tank Use: M.V. FUEL
Stg: P

STAR MARKET #2 (Continued) **S101625737**

Content: LEADED
Number Of Tanks: Not reported

---

7 West 1/4-1/2 2204 ft. **VALLEY LANDSCAPING 1320 EAST HARNEY LANE LODI, CA** **SWF/LF** **S105964630 N/A**

Relative: Lower

Actual: 37 ft.

LF:

Region:	STATE
Facility ID:	39-AA-0044
Facility Telephone:	Not reported
Facility Telephone 2:	Not reported
Lat/Long:	38.10069 / -121.26862
Land Owner:	Not reported
Owner Name:	Everitt, Raymond E.
Owner Telephone:	2093696115
Owner Address:	Not reported
Owner Address2:	1320 East Harney Lane
Owner City,St,Zip:	Lodi, CA 95242
Operator:	Valley Landscaping
Operator Phone:	2093343659
Operator Address:	Donald W. Oliver
Operator Address2:	12900 North Lower Sacramento
Operator City,St,Zip:	Lodi, CA 95242
Operator's Status:	Planned
Permit Date:	Not reported
Permit Status:	Not reported
Permitted Acreage:	0.00
Activity:	Composting Facility (Green Waste)
Regulation Status:	Proposed
Land Use:	Not reported
Landuse Name:	Agricultural
GIS Source:	External
Category:	Composting
Unit Number:	01
Inspection Frequency:	None
Accepted Waste:	Green Materials
Year Opened:	Not reported
Year Closed:	Not reported
Closure Date:	/ /
Closure Type:	Not reported
Closure Approve:	Not reported
Disposal Acreage:	Not reported
Status:	Not reported
Swisnumber:	Not reported
Aka:	Not reported
Type Of Waste:	Not reported
Disposal Area:	Not reported
SWFP Date:	Not reported
WDR Number:	Not reported
Dates Operation:	Not reported
Dt Of Field Units:	Not reported
Surface Condition:	Not reported
Landfill Gas:	Not reported
Leachate:	Not reported
Emrgncy Response:	Not reported
Lea Date:	Not reported

VALLEY LANDSCAPING (Continued) **S105964630**

Restrictions:	Not reported
Fill Area:	Not reported
Type Of Refuse:	Not reported
Avg Depth Of Fill:	Not reported
Addtl Expansion Area:	Not reported
Site Size:	Not reported
Site Type:	Not reported
Site Description:	Not reported
Reassess Site:	Not reported
Location:	Not reported
Parcel Num:	Not reported
Issue & Observations:	Not reported
Other Observations:	Not reported
Date:	Not reported
Address:	Not reported
Prep By:	Not reported
DOHS Number:	Not reported
CUP Number:	Not reported
CIWMB:	Not reported
Program Type:	Not reported
Public Notice:	Not reported
PERMTIER:	Not reported
Recommendations:	Not reported
Othr Recommendation:	Not reported
Sig. Change Since Last Visit:	Not reported
Priority For Site Assessment:	Not reported
Permitted Throughput with Units:	Not reported
Actual Throughput with Units:	Not reported
Permitted Capacity with Units:	Not reported
Remaining Capacity:	Not reported
Remaining Capacity with Units:	Not reported
Last Waste Tire Inspection Count:	Not reported
Last Waste Tire Inspection Date:	Not reported
Original Waste Tire Count:	Not reported
Original Waste Tire Count Date:	Not reported

8
East
1/2-1
4316 ft.

RICHARDS RANCH ELEMENTARY SCHOOL **SCH** **S105628945**
BLUE JAY WAY/CULBERTSON **ENVIROSTOR** **N/A**
LODI, CA 95240

Relative:
Higher

Actual:
48 ft.

SCH:

Facility ID:	39010027
Site Type:	School Investigation
Site Type Detail:	School
Acres:	11.66
National Priorities List:	NO
Cleanup Oversight Agencies:	DTSC
Lead Agency:	NONE SPECIFIED
Lead Agency Description:	Not reported
Project Manager:	FIDENCIO LOPEZ
Supervisor:	Charles Ridenour
Division Branch:	School Evaluation - Glendale / Sacramento
Site Code:	104171-11
Assembly:	10
Senate:	14
Special Program Status:	Not reported
Status:	No Further Action

RICHARDS RANCH ELEMENTARY SCHOOL (Continued) **S105628945**

Status Date:	2001-09-10 00:00:00
Restricted Use:	NO
Funding:	School District
Latitude:	38.106184
Longitude:	-121.264811
Alias Name:	104171-11
	39010027
	LODI USD-RICHARDS RANCH ELEMENTARY
	RICHARDS RANCH ELEMENTARY SCHOOL
	LODI UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
	Alternate Name
	Alternate Name
	Project Code (Site Code)
	Envirostor ID Number
APN:	NONE SPECIFIED
APN Description:	Not reported
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	/ /
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	/ /
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/ Visit
Completed Date:	/ /
Confirmed:	30023-NO,30001-NO,30006-NO,30007-NO,30008-NO
Confirmed Description:	Not reported
Confirmed Description:	Not reported
Confirmed Description:	Not reported
Confirmed Description:	Not reported
Confirmed Description:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Media Affected:	30001, 30006, 30007, 30008, 30023
Media Affected Desc:	Not reported
Media Affected Desc:	Not reported
Media Affected Desc:	Not reported
Media Affected Desc:	Not reported
Media Affected Desc:	Not reported
Management Required:	NONE SPECIFIED
Management Required Desc:	Not reported
Potential:	NMA, SOIL
Potenital Description:	Not reported
Potenital Description:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported
PastUse:	AGRICULTURAL - ROW CROPS

RICHARDS RANCH ELEMENTARY SCHOOL (Continued) **S105628945**

ENVIROSTOR:

Site Type:	School Investigation
Site Type Detailed:	School
Acres:	11.66
NPL:	NO
Regulatory Agencies:	DTSC
Lead Agency:	NONE SPECIFIED
Program Manager:	FIDENCIO LOPEZ
Supervisor:	Charles Ridenour
Division Branch:	School Evaluation - Glendale / Sacramento
Facility ID:	39010027
Site Code:	104171-11
Assembly:	10
Senate:	14
Special Program:	Not reported
Status:	**No Further Action**
Status Date:	2001-09-10 00:00:00
Restricted Use:	NO
Funding:	School District
Latitude:	38.106184
Longitude:	-121.264811
Alias Name:	104171-11
	39010027
	LODI USD-RICHARDS RANCH ELEMENTARY
	RICHARDS RANCH ELEMENTARY SCHOOL
	LODI UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
	Alternate Name
	Alternate Name
	Project Code (Site Code)
	Envirostor ID Number
APN:	NONE SPECIFIED
APN Description:	Not reported
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	/ /
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	/ /
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/ Visit
Completed Date:	/ /
Confirmed:	30023-NO,30001-NO,30006-NO,30007-NO,30008-NO
Confirmed Description:	Not reported
Confirmed Description:	Not reported
Confirmed Description:	Not reported
Confirmed Description:	Not reported
Confirmed Description:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Media Affected:	30001, 30006, 30007, 30008, 30023

RICHARDS RANCH ELEMENTARY SCHOOL (Continued) **S105628945**

Media Affected Desc:	Not reported
Media Affected Desc:	Not reported
Media Affected Desc:	Not reported
Media Affected Desc:	Not reported
Media Affected Desc:	Not reported
Management Required:	NONE SPECIFIED
Management Required Desc:	Not reported
Potential:	NMA, SOIL
Potenital Description:	Not reported
Potenital Description:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported
PastUse:	AGRICULTURAL - ROW CROPS

---

9 **SOUTHWEST LODI ELEMENTARY SCHOOL SITE** **SCH** **S105628948**
West **1041/1171 EAST HARNEY LANE** **ENVIROSTOR** **N/A**
1/2-1 **LODI, CA 95242**
4391 ft.

Relative:
Lower

Actual:
34 ft.

SCH:

Facility ID:	39010030
Site Type:	School Investigation
Site Type Detail:	School
Acres:	21.43
National Priorities List:	NO
Cleanup Oversight Agencies:	DTSC
Lead Agency:	NONE SPECIFIED
Lead Agency Description:	Not reported
Project Manager:	FIDENCIO LOPEZ
Supervisor:	Javier Hinojosa
Division Branch:	School Evaluation - Glendale / Sacramento
Site Code:	104270-11
Assembly:	10
Senate:	14
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	2003-04-11 00:00:00
Restricted Use:	NO
Funding:	School District
Latitude:	38.101237
Longitude:	-121.302777
Alias Name:	104270-11
	39010030
	LODI USD-SOUTHWEST LODI ELEM
	SOUTHWEST LODI ELEMENTARY SCHOOL SITE
	LODI USD
Alias Type:	Alternate Name
	Alternate Name
	Alternate Name
	Project Code (Site Code)
	Envirostor ID Number
APN:	NONE SPECIFIED
APN Description:	Not reported
Comments:	Not reported
Completed Area Name:	PROJECT WIDE

SOUTHWEST LODI ELEMENTARY SCHOOL SITE (Continued) **S105628948**

Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	/ /
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	/ /
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/ Visit
Completed Date:	/ /
Confirmed:	30023-NO,30001-NO,30006-NO,30007-NO,30008-NO,31000
Confirmed Description:	Not reported
Confirmed Description:	Not reported
Confirmed Description:	Not reported
Confirmed Description:	Not reported
Confirmed Description:	Not reported
Confirmed Description:	No Contaminants found
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Media Affected:	, 30001, 30006, 30007, 30008, 30023
Media Affected Desc:	Not reported
Media Affected Desc:	Not reported
Media Affected Desc:	Not reported
Media Affected Desc:	Not reported
Media Affected Desc:	Not reported
Media Affected Desc:	Not reported
Management Required:	NONE SPECIFIED
Management Required Desc:	Not reported
Potential:	SOIL
Potenital Description:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported
PastUse:	AGRICULTURAL - ROW CROPS

ENVIROSTOR:

Site Type:	School Investigation
Site Type Detailed:	School
Acres:	21.43
NPL:	NO
Regulatory Agencies:	DTSC
Lead Agency:	NONE SPECIFIED
Program Manager:	FIDENCIO LOPEZ
Supervisor:	Javier Hinojosa
Division Branch:	School Evaluation - Glendale / Sacramento
Facility ID:	39010030
Site Code:	104270-11
Assembly:	10
Senate:	14
Special Program:	Not reported
Status:	**No Further Action**
Status Date:	2003-04-11 00:00:00

SOUTHWEST LODI ELEMENTARY SCHOOL SITE (Continued) **S105628948**

Restricted Use:	NO
Funding:	School District
Latitude:	38.101237
Longitude:	-121.302777
Alias Name:	104270-11
	39010030
	LODI USD-SOUTHWEST LODI ELEM
	SOUTHWEST LODI ELEMENTARY SCHOOL SITE
	LODI USD
Alias Type:	Alternate Name
	Alternate Name
	Alternate Name
	Project Code (Site Code)
	Envirostor ID Number
APN:	NONE SPECIFIED
APN Description:	Not reported
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	/ /
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	/ /
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/ Visit
Completed Date:	/ /
Confirmed:	30023-NO,30001-NO,30006-NO,30007-NO,30008-NO,31000
Confirmed Description:	Not reported
Confirmed Description:	Not reported
Confirmed Description:	Not reported
Confirmed Description:	Not reported
Confirmed Description:	Not reported
Confirmed Description:	No Contaminants found
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Media Affected:	, 30001, 30006, 30007, 30008, 30023
Media Affected Desc:	Not reported
Media Affected Desc:	Not reported
Media Affected Desc:	Not reported
Media Affected Desc:	Not reported
Media Affected Desc:	Not reported
Media Affected Desc:	Not reported
Management Required:	NONE SPECIFIED
Management Required Desc:	Not reported
Potential:	SOIL
Potenital Description:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported
PastUse:	AGRICULTURAL - ROW CROPS

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
LODI	S104164855	CHARLEY JACOBS	13889 HWY 12 W	95240	LUST, Cortese
LODI	U003879543	HARRIS RANCH	17112 HWY 88	95240	UST
LODI	S104735713	VICTOR MEATS	18846 HWY 99 N	95240	LUST
LODI	U003786367	VICTOR FINE FOODS	18846 HWY 99	95240	UST, CA WDS
LODI	90170151	BETWEEN TURNER & HARNEY RDS	BETWEEN TURNER & HARNEY RDS		ERNS
LODI	1003878922	PG&E GAS PLANT LODI	SE COR S SACTO & SPRUCE STS	95240	CERC-NFRAP
LODI	U001604554	WELL 16	WEST END OF CENTURY BLVD.	95240	HIST UST
LODI	S106230433	UNION PACIFIC RAILROAD COMPANY **	HARNEY LN, 1/2 MILE TO THE NORTH		SLIC
LODI	S105638323		HARNEY LANE AND BECKMAN RD EAST OF		CHMIRS, SLIC
LODI	2003708539	14900 WEST HWY 12	14900 WEST HWY 12		ERNS
LODI	2004715971	14900 WEST HWY 12	14900 WEST HWY 12		ERNS
LODI	2003649275	14900 WEST HWY 12	14900 WEST HWY 12	95242	ERNS
LODI	1007569163	PLASTAKET MGF CO INC	6220 E HWY 12	95240	RCRA-SQG, HAZNET
LODI	1008198714	COUNTRYSIDE MINI MART & DELI	14971 N HWY 88	95240	FINDS, UST
LODI	S101625746	W. GALEN JOHNSON	11205 N HWY 99	95240	CA FID UST, SWEEPS UST
LODI	U004023347	BECKMAN, ES & JM TRS	7868 E HWY 12	95240	UST
LODI	U004023531	CHARLES LEWIS	8832 E HWY 12	95240	UST
LODI	U004023599	CLARK BUSINESS PROPERTIES	6797 E HWY 12	95240	UST
LODI	U004023711	DIEDE CONSTRUCTION	11780 N HWY 99	95240	UST
LODI	U004023869	FRASCH, EMMA*	13731 N HWY 88	95240	UST
LODI	U004023977	HARRIS RANCH	17112 N HWY 88	95240	UST
LODI	U004024293	MALIK, NUSRAT NASIM	6550 E HWY 12	95240	UST
LODI	U004024382	MILLER, ELLIS	8000 E HWY 12	95240	UST
LODI	U004024479	OAK RIDGE WINERY, LLC	6100 E HWY 12	95240	UST
LODI	U004024521	PACIFIC GROWERS NURSERY	10400 E HWY 12	95240	UST
LODI	U004024996	T&T TRUCKING INC	11396 N HWY 99	95240	UST
LODI	U004025189	VICTOR FINE FOODS	18846 N HWY 99	95240	UST
LODI	U004025204	W GALEN JOHNSON	11205 N HWY 99	95240	UST
LODI	U004025289	ZECHEISTER, JERRY	13371 N HWY 99	95240	UST
LODI	U004023530	CHARLES JACOBS	13889 W HWY 12	95242	UST
LODI	U004024321	MARTINI'S BAIT & TACKLE	3049 W HWY 12	95242	UST
LODI	U004024575	PHILLIPS FARMS	4580 W HWY 12	95242	UST
LODI	U004024639	R A RIPKEN GRAPE NURSERY INC	2201 W HWY 12	95242	UST
LODI	U004024792	SCHNABEL, CHARLES	2611 W HWY 12	95242	UST
LODI	A100225992	FRANK C. ALEGRE TRUCKING INC.	5100 W. HWY. 12	95242	AST
LODI	S106486873	VICTOR FINE FOODS	18846 N. HWY. 99 FRONTAGE RD.		SLIC
LODI	1000250927	PACIFIC BELL	KENNISON ROAD & HIGHWAY 88	95240	RCRA-SQG, FINDS
SAN JOAQUIN COUNTY	S105637094		WHISKEY SLOUGH ROAD 1/8 MILE NORTH OF CITY OF HOLT		CHMIRS, SLIC
VICTOR	S106929569	MOKELUMNE RURAL FIRE DEPT	8910 E HWY 26	95240	SWEEPS UST

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

FEDERAL RECORDS

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/20/2007
Date Data Arrived at EDR: 05/03/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 63

Source: EPA
Telephone: N/A
Last EDR Contact: 07/31/2007
Next Scheduled EDR Contact: 10/29/2007
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/20/2007
Date Data Arrived at EDR: 05/03/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 63

Source: EPA
Telephone: N/A
Last EDR Contact: 08/03/2007
Next Scheduled EDR Contact: 10/29/2007
Data Release Frequency: Quarterly

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/20/2007
Date Data Arrived at EDR: 05/03/2007
Date Made Active in Reports: 06/25/2007
Number of Days to Update: 53

Source: EPA
Telephone: N/A
Last EDR Contact: 08/03/2007
Next Scheduled EDR Contact: 10/29/2007
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: No Update Planned

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/27/2007
Date Data Arrived at EDR: 03/21/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 37

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 06/20/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: Quarterly

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 03/21/2007
Date Data Arrived at EDR: 04/27/2007
Date Made Active in Reports: 05/25/2007
Number of Days to Update: 28

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 06/15/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: Quarterly

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/14/2007
Date Data Arrived at EDR: 03/20/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 38

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/04/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Quarterly

RCRA: Resource Conservation and Recovery Act Information

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/13/2006
Date Data Arrived at EDR: 06/28/2006
Date Made Active in Reports: 08/23/2006
Number of Days to Update: 56

Source: EPA
Telephone: (415) 495-8895
Last EDR Contact: 07/16/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: Quarterly

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 01/24/2007
Date Made Active in Reports: 03/12/2007
Number of Days to Update: 47

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 07/23/2007
Next Scheduled EDR Contact: 10/22/2007
Data Release Frequency: Annually

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/05/2007
Date Data Arrived at EDR: 04/17/2007
Date Made Active in Reports: 05/14/2007
Number of Days to Update: 27

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 07/18/2007
Next Scheduled EDR Contact: 10/15/2007
Data Release Frequency: Annually

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 04/20/2007
Date Data Arrived at EDR: 04/26/2007
Date Made Active in Reports: 05/25/2007
Number of Days to Update: 29

Source: Environmental Protection Agency
Telephone: 703-603-8905
Last EDR Contact: 07/02/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 04/20/2007
Date Data Arrived at EDR: 04/26/2007
Date Made Active in Reports: 05/25/2007
Number of Days to Update: 29

Source: Environmental Protection Agency
Telephone: 703-603-8905
Last EDR Contact: 07/02/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 703-692-8801
Last EDR Contact: 08/09/2007
Next Scheduled EDR Contact: 11/05/2007
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 09/20/2006
Date Made Active in Reports: 11/22/2006
Number of Days to Update: 63

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 08/13/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Varies

US BROWNFIELDS: A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 04/04/2007
Date Data Arrived at EDR: 04/04/2007
Date Made Active in Reports: 05/25/2007
Number of Days to Update: 51

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/11/2007
Next Scheduled EDR Contact: 09/10/2007
Data Release Frequency: Semi-Annually

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 08/23/2006
Date Data Arrived at EDR: 03/06/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 35

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 07/24/2007
Next Scheduled EDR Contact: 10/22/2007
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 03/27/2007
Date Data Arrived at EDR: 03/27/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 31

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 07/02/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/08/2006
Date Made Active in Reports: 01/29/2007
Number of Days to Update: 82

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 07/05/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 04/27/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 69

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 06/19/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2002
Date Data Arrived at EDR: 04/14/2006
Date Made Active in Reports: 05/30/2006
Number of Days to Update: 46

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 07/30/2007
Next Scheduled EDR Contact: 10/15/2007
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/13/2007
Date Data Arrived at EDR: 04/25/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 71

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 06/15/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/13/2007
Date Data Arrived at EDR: 04/25/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 71

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 06/15/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: Quarterly

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 03/13/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 45

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/16/2007
Next Scheduled EDR Contact: 10/15/2007
Data Release Frequency: Annually

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 06/11/2007
Next Scheduled EDR Contact: 09/10/2007
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 05/14/2007
Date Data Arrived at EDR: 05/30/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 36

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 05/30/2007
Next Scheduled EDR Contact: 08/27/2007
Data Release Frequency: Varies

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 02/21/2007
Date Data Arrived at EDR: 04/03/2007
Date Made Active in Reports: 05/14/2007
Number of Days to Update: 41

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 06/22/2007
Next Scheduled EDR Contact: 07/16/2007
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 06/15/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 12/01/2006
Date Data Arrived at EDR: 01/08/2007
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 3

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 06/29/2007
Next Scheduled EDR Contact: 09/24/2007
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 05/01/2007
Date Data Arrived at EDR: 05/03/2007
Date Made Active in Reports: 05/25/2007
Number of Days to Update: 22

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 08/01/2007
Next Scheduled EDR Contact: 10/29/2007
Data Release Frequency: Quarterly

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 03/08/2007
Date Data Arrived at EDR: 04/12/2007
Date Made Active in Reports: 05/14/2007
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: Varies

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/17/2006
Date Data Arrived at EDR: 11/29/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 43

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 08/09/2007
Next Scheduled EDR Contact: 11/05/2007
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/05/2007
Date Data Arrived at EDR: 04/25/2007
Date Made Active in Reports: 05/25/2007
Number of Days to Update: 30

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 07/02/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Quarterly

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/06/2007
Date Data Arrived at EDR: 03/28/2007
Date Made Active in Reports: 05/14/2007
Number of Days to Update: 47

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 06/28/2007
Next Scheduled EDR Contact: 09/24/2007
Data Release Frequency: Semi-Annually

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/12/2007
Date Data Arrived at EDR: 05/17/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 49

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 07/02/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/04/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 03/06/2007
Date Made Active in Reports: 04/13/2007
Number of Days to Update: 38

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/12/2007
Next Scheduled EDR Contact: 09/10/2007
Data Release Frequency: Biennially

USGS WATER WELLS: National Water Information System (NWIS)

This database consists of well records in the United States. Available site descriptive information includes well location information (latitude and longitude, well depth, site use, water use, and aquifer).

Date of Government Version: 03/25/2005
Date Data Arrived at EDR: 03/25/2005
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: USGS
Telephone: N/A
Last EDR Contact: 03/25/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: N/A

PWS: Public Water System Data

This Safe Drinking Water Information System (SDWIS) file contains public water systems name and address, population served and the primary source of water

Date of Government Version: 02/24/2000
Date Data Arrived at EDR: 04/27/2005
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: EPA
Telephone: N/A
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: N/A

STATE AND LOCAL RECORDS

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 05/25/2007
Next Scheduled EDR Contact: 08/27/2007
Data Release Frequency: No Update Planned

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 05/29/2007
Date Data Arrived at EDR: 05/30/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 30

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/30/2007
Next Scheduled EDR Contact: 08/27/2007
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 07/30/2007
Next Scheduled EDR Contact: 10/29/2007
Data Release Frequency: No Update Planned

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 06/11/2007
Date Data Arrived at EDR: 06/13/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 16

Source: Integrated Waste Management Board
Telephone: 916-341-6320
Last EDR Contact: 06/13/2007
Next Scheduled EDR Contact: 09/10/2007
Data Release Frequency: Quarterly

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 06/04/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Quarterly

CA WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 06/20/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: Quarterly

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites). This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 05/29/2001
Date Made Active in Reports: 07/26/2001
Number of Days to Update: 58

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 07/23/2007
Next Scheduled EDR Contact: 10/22/2007
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 07/09/2007
Date Data Arrived at EDR: 07/11/2007
Date Made Active in Reports: 08/09/2007
Number of Days to Update: 29

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 07/11/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: Quarterly

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 07/16/2007
Next Scheduled EDR Contact: 10/15/2007
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/06/2007
Next Scheduled EDR Contact: 11/05/2007
Data Release Frequency: Varies

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 07/02/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 06/04/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2007
Date Data Arrived at EDR: 08/01/2007
Date Made Active in Reports: 08/09/2007
Number of Days to Update: 8

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 08/01/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Quarterly

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 06/25/2007
Next Scheduled EDR Contact: 09/24/2007
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 08/13/2007
Next Scheduled EDR Contact: 11/12/2007
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 07/09/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 07/10/2007
Date Data Arrived at EDR: 07/11/2007
Date Made Active in Reports: 08/09/2007
Number of Days to Update: 29

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 07/11/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: Quarterly

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: No Update Planned

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SLIC: Statewide SLIC Cases
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 08/03/2007
Date Data Arrived at EDR: 08/03/2007
Date Made Active in Reports: 08/09/2007
Number of Days to Update: 6

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 08/03/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 07/09/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 08/13/2007
Next Scheduled EDR Contact: 11/12/2007
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/23/2007
Next Scheduled EDR Contact: 10/22/2007
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 07/02/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 07/02/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 06/04/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 07/17/2007
Date Data Arrived at EDR: 07/18/2007
Date Made Active in Reports: 08/09/2007
Number of Days to Update: 22

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 07/17/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 03/13/2007
Date Data Arrived at EDR: 03/14/2007
Date Made Active in Reports: 04/06/2007
Number of Days to Update: 23

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 06/29/2007
Next Scheduled EDR Contact: 08/27/2007
Data Release Frequency: Annually

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 07/10/2007
Date Data Arrived at EDR: 07/11/2007
Date Made Active in Reports: 07/25/2007
Number of Days to Update: 14

Source: SWRCB
Telephone: 916-480-1028
Last EDR Contact: 07/11/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: Semi-Annually

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 06/25/2007
Date Data Arrived at EDR: 06/26/2007
Date Made Active in Reports: 07/25/2007
Number of Days to Update: 29

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 06/25/2007
Next Scheduled EDR Contact: 09/24/2007
Data Release Frequency: Varies

HIST UST: Hazardous Substance Storage Container Database
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 05/07/2007
Date Data Arrived at EDR: 05/08/2007
Date Made Active in Reports: 05/25/2007
Number of Days to Update: 17

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/05/2007
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities
Registered Aboveground Storage Tanks.

Date of Government Version: 05/01/2007
Date Data Arrived at EDR: 05/01/2007
Date Made Active in Reports: 05/25/2007
Number of Days to Update: 24

Source: State Water Resources Control Board
Telephone: 916-341-5712
Last EDR Contact: 07/30/2007
Next Scheduled EDR Contact: 10/29/2007
Data Release Frequency: Quarterly

SWEEPS UST: SWEEPS UST Listing
Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1980's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/23/2007
Date Made Active in Reports: 04/06/2007
Number of Days to Update: 42

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: Varies

NOTIFY 65: Proposition 65 Records

Proposition 65 Notification Records. NOTIFY 65 contains facility notifications about any release which could impact drinking water and thereby expose the public to a potential health risk.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 07/16/2007
Next Scheduled EDR Contact: 10/15/2007
Data Release Frequency: No Update Planned

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 07/02/2007
Date Data Arrived at EDR: 07/03/2007
Date Made Active in Reports: 08/09/2007
Number of Days to Update: 37

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/03/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Semi-Annually

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 05/29/2007
Date Data Arrived at EDR: 05/30/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 30

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/30/2007
Next Scheduled EDR Contact: 08/27/2007
Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 07/31/2007
Date Data Arrived at EDR: 07/31/2007
Date Made Active in Reports: 08/09/2007
Number of Days to Update: 9

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 07/30/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Annually

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 03/01/2007
Date Data Arrived at EDR: 03/13/2007
Date Made Active in Reports: 04/06/2007
Number of Days to Update: 24

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 07/27/2007
Next Scheduled EDR Contact: 10/22/2007
Data Release Frequency: Varies

CDL: Clandestine Drug Labs
A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 03/07/2007
Date Made Active in Reports: 04/06/2007
Number of Days to Update: 30

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 10/22/2007
Data Release Frequency: Varies

RESPONSE: State Response Sites
Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 05/29/2007
Date Data Arrived at EDR: 05/30/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 30

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/30/2007
Next Scheduled EDR Contact: 08/27/2007
Data Release Frequency: Quarterly

HAZNET: Facility and Manifest Data
Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/20/2006
Date Made Active in Reports: 01/03/2007
Number of Days to Update: 44

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 08/09/2007
Next Scheduled EDR Contact: 11/05/2007
Data Release Frequency: Annually

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 04/17/2007
Date Made Active in Reports: 05/10/2007
Number of Days to Update: 23

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 07/20/2007
Next Scheduled EDR Contact: 10/15/2007
Data Release Frequency: Varies

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 06/07/2007
Date Data Arrived at EDR: 06/08/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 21

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 05/11/2007
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 05/29/2007
Date Data Arrived at EDR: 05/30/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 30

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/30/2007
Next Scheduled EDR Contact: 08/27/2007
Data Release Frequency: Quarterly

TRIBAL RECORDS

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 08/09/2007
Next Scheduled EDR Contact: 11/05/2007
Data Release Frequency: Semi-Annually

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 06/01/2007
Date Data Arrived at EDR: 06/14/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 21

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/30/2007
Date Data Arrived at EDR: 05/31/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 35

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 01/04/2005
Date Data Arrived at EDR: 01/21/2005
Date Made Active in Reports: 02/28/2005
Number of Days to Update: 38

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 03/20/2007
Date Data Arrived at EDR: 04/16/2007
Date Made Active in Reports: 05/14/2007
Number of Days to Update: 28

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 12/01/2006
Date Data Arrived at EDR: 12/01/2006
Date Made Active in Reports: 01/29/2007
Number of Days to Update: 59

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 05/23/2007
Date Data Arrived at EDR: 05/24/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 42

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 06/18/2007
Date Data Arrived at EDR: 06/18/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 17

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land
A listing of underground storage tank locations on Indian Land.

Date of Government Version: 12/01/2006
Date Data Arrived at EDR: 12/01/2006
Date Made Active in Reports: 01/29/2007
Number of Days to Update: 59

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

Date of Government Version: 06/01/2007
Date Data Arrived at EDR: 06/14/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 21

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

Date of Government Version: 03/20/2007
Date Data Arrived at EDR: 04/16/2007
Date Made Active in Reports: 05/14/2007
Number of Days to Update: 28

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: Semi-Annually

INDIAN UST R6: Underground Storage Tanks on Indian Land

Date of Government Version: 06/06/2007
Date Data Arrived at EDR: 06/07/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 28

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: Semi-Annually

INDIAN UST R9: Underground Storage Tanks on Indian Land

Date of Government Version: 06/18/2007
Date Data Arrived at EDR: 06/18/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 17

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

Date of Government Version: 05/23/2007
Date Data Arrived at EDR: 05/24/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 42

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: Quarterly

INDIAN UST R5: Underground Storage Tanks on Indian Land

Date of Government Version: 12/02/2004
Date Data Arrived at EDR: 12/29/2004
Date Made Active in Reports: 02/04/2005
Number of Days to Update: 37

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

Date of Government Version: 05/30/2007
Date Data Arrived at EDR: 05/31/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 35

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: Quarterly

EDR PROPRIETARY RECORDS

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

FEDERAL RECORDS

COLLEGES: Integrated Postsecondary Education Data

The National Center for Education Statistics' primary database on integrated postsecondary education in the United States.

Date of Government Version: N/A
Date Data Arrived at EDR: 10/12/2005
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: National Center for Education Statistics
Telephone: 202-502-7300
Last EDR Contact: 09/22/2006
Next Scheduled EDR Contact: N/A
Data Release Frequency: N/A

PUBLIC SCHOOLS: Public Schools

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/13/2004
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: National Center for Education statistics
Telephone: 202-502-7300
Last EDR Contact: 07/11/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: N/A

PRIVATE SCHOOLS: Private Schools of the United States

The National Center for Education Statistics' primary database on private school locations in the United States.

Date of Government Version: N/A
Date Data Arrived at EDR: 10/07/2005
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: National Center for Education Statistics
Telephone: 202-502-7300
Last EDR Contact: 09/22/2006
Next Scheduled EDR Contact: N/A
Data Release Frequency: N/A

NURSING HOMES: Directory of Nursing Homes

Information on Medicare and Medicaid certified nursing homes in the United States.

Date of Government Version: N/A
Date Data Arrived at EDR: 10/11/2005
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: N/A
Telephone: 800-568-3282
Last EDR Contact: 09/22/2006
Next Scheduled EDR Contact: N/A
Data Release Frequency: N/A

MEDICAL CENTERS: Provider of Services Listing

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health & Human Services.

Date of Government Version: 06/01/1998
Date Data Arrived at EDR: 11/10/2005
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
Last EDR Contact: 01/12/2007
Next Scheduled EDR Contact: N/A
Data Release Frequency: N/A

HOSPITALS: AHA Hospital Guide

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Date of Government Version: N/A
Date Data Arrived at EDR: 10/19/1994
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: American Hospital Association
Telephone: 800-242-2626
Last EDR Contact: 09/22/2006
Next Scheduled EDR Contact: N/A
Data Release Frequency: N/A

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 04/24/2007
Date Data Arrived at EDR: 04/26/2007
Date Made Active in Reports: 05/10/2007
Number of Days to Update: 14

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 07/23/2007
Next Scheduled EDR Contact: 10/22/2007
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 04/24/2007
Date Data Arrived at EDR: 04/26/2007
Date Made Active in Reports: 05/07/2007
Number of Days to Update: 11

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 07/23/2007
Next Scheduled EDR Contact: 10/22/2007
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 05/29/2007
Date Data Arrived at EDR: 05/31/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 29

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 05/29/2007
Next Scheduled EDR Contact: 08/27/2007
Data Release Frequency: Semi-Annually

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 07/16/2007
Date Data Arrived at EDR: 07/17/2007
Date Made Active in Reports: 08/09/2007
Number of Days to Update: 23

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 08/06/2007
Next Scheduled EDR Contact: 11/05/2007
Data Release Frequency: Semi-Annually

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing

Kern County Sites and Tanks Listing.

Date of Government Version: 06/20/2007
Date Data Arrived at EDR: 06/21/2007
Date Made Active in Reports: 07/25/2007
Number of Days to Update: 34

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 06/18/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Quarterly

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 07/07/1999
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 07/16/2007
Next Scheduled EDR Contact: 10/15/2007
Data Release Frequency: No Update Planned

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 01/31/2007
Date Data Arrived at EDR: 04/12/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 15

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 08/13/2007
Next Scheduled EDR Contact: 11/12/2007
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 05/15/2007
Date Data Arrived at EDR: 06/08/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 21

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 08/17/2007
Next Scheduled EDR Contact: 11/12/2007
Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/01/2007
Date Data Arrived at EDR: 03/27/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 31

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 06/11/2007
Next Scheduled EDR Contact: 09/10/2007
Data Release Frequency: Varies

Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 05/30/2007
Date Data Arrived at EDR: 07/11/2007
Date Made Active in Reports: 08/09/2007
Number of Days to Update: 29

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 08/13/2007
Next Scheduled EDR Contact: 11/12/2007
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 05/14/2007
Date Data Arrived at EDR: 05/15/2007
Date Made Active in Reports: 06/25/2007
Number of Days to Update: 41

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 08/13/2007
Next Scheduled EDR Contact: 11/12/2007
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003
Date Data Arrived at EDR: 10/23/2003
Date Made Active in Reports: 11/26/2003
Number of Days to Update: 34

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 05/30/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 05/29/2007
Date Data Arrived at EDR: 05/29/2007
Date Made Active in Reports: 06/25/2007
Number of Days to Update: 27

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 08/13/2007
Next Scheduled EDR Contact: 11/12/2007
Data Release Frequency: Semi-Annually

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 05/08/2007
Date Data Arrived at EDR: 06/08/2007
Date Made Active in Reports: 07/25/2007
Number of Days to Update: 47

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 07/30/2007
Next Scheduled EDR Contact: 10/29/2007
Data Release Frequency: Semi-Annually

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 07/24/2007
Date Data Arrived at EDR: 07/27/2007
Date Made Active in Reports: 08/09/2007
Number of Days to Update: 13

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 07/24/2007
Next Scheduled EDR Contact: 09/24/2007
Data Release Frequency: Semi-Annually

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 04/09/2007
Date Data Arrived at EDR: 04/10/2007
Date Made Active in Reports: 04/24/2007
Number of Days to Update: 14

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 07/24/2007
Next Scheduled EDR Contact: 09/24/2007
Data Release Frequency: Annually

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 06/01/2007
Date Data Arrived at EDR: 06/19/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 10

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 06/06/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 06/01/2007
Date Data Arrived at EDR: 06/19/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 10

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 06/06/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities

Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 06/01/2007
Date Data Arrived at EDR: 06/19/2007
Date Made Active in Reports: 07/25/2007
Number of Days to Update: 36

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 06/06/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 07/23/2007
Date Data Arrived at EDR: 07/23/2007
Date Made Active in Reports: 08/09/2007
Number of Days to Update: 17

Source: Placer County Health and Human Services
Telephone: 530-889-7312
Last EDR Contact: 06/18/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/21/2007
Date Data Arrived at EDR: 05/22/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 38

Source: Department of Public Health
Telephone: 951-358-5055
Last EDR Contact: 07/16/2007
Next Scheduled EDR Contact: 10/15/2007
Data Release Frequency: Quarterly

Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 05/21/2007
Date Data Arrived at EDR: 05/22/2007
Date Made Active in Reports: 06/25/2007
Number of Days to Update: 34

Source: Health Services Agency
Telephone: 951-358-5055
Last EDR Contact: 07/16/2007
Next Scheduled EDR Contact: 10/15/2007
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Contaminated Sites

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 05/04/2007
Date Data Arrived at EDR: 05/23/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 37

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/31/2007
Next Scheduled EDR Contact: 10/29/2007
Data Release Frequency: Quarterly

ML - Regulatory Compliance Master List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 05/04/2007
Date Data Arrived at EDR: 05/24/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 36

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/31/2007
Next Scheduled EDR Contact: 10/29/2007
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 06/27/2007
Date Data Arrived at EDR: 06/29/2007
Date Made Active in Reports: 08/09/2007
Number of Days to Update: 41

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 06/04/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 05/16/2005
Date Data Arrived at EDR: 05/18/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 29

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 07/05/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 11/01/2006
Date Data Arrived at EDR: 01/03/2007
Date Made Active in Reports: 01/24/2007
Number of Days to Update: 21

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 08/20/2007
Next Scheduled EDR Contact: 11/19/2007
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 06/27/2007
Date Data Arrived at EDR: 07/20/2007
Date Made Active in Reports: 08/09/2007
Number of Days to Update: 20

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 07/03/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Varies

SAN FRANCISCO COUNTY:

Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 06/08/2007
Date Data Arrived at EDR: 06/12/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 17

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 06/04/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 06/08/2007
Date Data Arrived at EDR: 06/12/2007
Date Made Active in Reports: 07/25/2007
Number of Days to Update: 43

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 06/04/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 04/06/2007
Date Data Arrived at EDR: 04/10/2007
Date Made Active in Reports: 04/24/2007
Number of Days to Update: 14

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 07/30/2007
Next Scheduled EDR Contact: 10/15/2007
Data Release Frequency: Semi-Annually

SAN MATEO COUNTY:

Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 07/30/2007
Date Data Arrived at EDR: 07/30/2007
Date Made Active in Reports: 08/09/2007
Number of Days to Update: 10

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 07/09/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: Annually

Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 07/09/2007
Date Data Arrived at EDR: 07/10/2007
Date Made Active in Reports: 08/09/2007
Number of Days to Update: 30

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 07/09/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: Semi-Annually

SANTA CLARA COUNTY:

HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 06/25/2007
Next Scheduled EDR Contact: 09/24/2007
Data Release Frequency: No Update Planned

LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/26/2007
Date Data Arrived at EDR: 03/27/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 31

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 06/25/2007
Next Scheduled EDR Contact: 09/24/2007
Data Release Frequency: Varies

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 06/11/2007
Date Data Arrived at EDR: 06/12/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 17

Source: City of San Jose Fire Department
Telephone: 408-277-4659
Last EDR Contact: 06/04/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Annually

SOLANO COUNTY:

Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 07/09/2007
Date Data Arrived at EDR: 08/03/2007
Date Made Active in Reports: 08/09/2007
Number of Days to Update: 6

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 07/09/2007
Next Scheduled EDR Contact: 09/24/2007
Data Release Frequency: Quarterly

Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 03/26/2007
Date Data Arrived at EDR: 04/18/2007
Date Made Active in Reports: 05/07/2007
Number of Days to Update: 19

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 07/09/2007
Next Scheduled EDR Contact: 09/24/2007
Data Release Frequency: Quarterly

SONOMA COUNTY:

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 07/09/2007
Date Data Arrived at EDR: 07/09/2007
Date Made Active in Reports: 08/09/2007
Number of Days to Update: 31

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 07/09/2007
Next Scheduled EDR Contact: 10/22/2007
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 05/04/2007
Date Data Arrived at EDR: 05/04/2007
Date Made Active in Reports: 05/24/2007
Number of Days to Update: 20

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 07/02/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Semi-Annually

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 05/30/2007
Date Data Arrived at EDR: 06/22/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 7

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/12/2007
Next Scheduled EDR Contact: 09/10/2007
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 08/01/2006
Date Data Arrived at EDR: 09/05/2006
Date Made Active in Reports: 10/05/2006
Number of Days to Update: 30

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 06/05/2007
Date Data Arrived at EDR: 06/21/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 8

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/12/2007
Next Scheduled EDR Contact: 09/10/2007
Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 03/28/2007
Date Data Arrived at EDR: 04/24/2007
Date Made Active in Reports: 05/07/2007
Number of Days to Update: 13

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 07/11/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 04/30/2007
Date Data Arrived at EDR: 05/15/2007
Date Made Active in Reports: 06/25/2007
Number of Days to Update: 41

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 07/30/2007
Next Scheduled EDR Contact: 10/15/2007
Data Release Frequency: Annually

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 06/15/2007
Date Made Active in Reports: 08/20/2007
Number of Days to Update: 66

Source: Department of Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 06/13/2007
Next Scheduled EDR Contact: 09/10/2007
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 04/01/2007
Date Data Arrived at EDR: 04/05/2007
Date Made Active in Reports: 05/08/2007
Number of Days to Update: 33

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/03/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 10/26/2006
Date Data Arrived at EDR: 11/29/2006
Date Made Active in Reports: 01/05/2007
Number of Days to Update: 37

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 06/01/2007
Next Scheduled EDR Contact: 08/27/2007
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 03/17/2006
Date Made Active in Reports: 06/06/2006
Number of Days to Update: 81

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/11/2007
Next Scheduled EDR Contact: 09/10/2007
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 04/09/2007
Date Data Arrived at EDR: 04/12/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 15

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 06/18/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 04/27/2007
Date Made Active in Reports: 06/08/2007
Number of Days to Update: 42

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 07/09/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: PennWell Corporation
Telephone: (800) 823-6277
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

STREET AND ADDRESS INFORMATION

© 2007 Tele Atlas North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

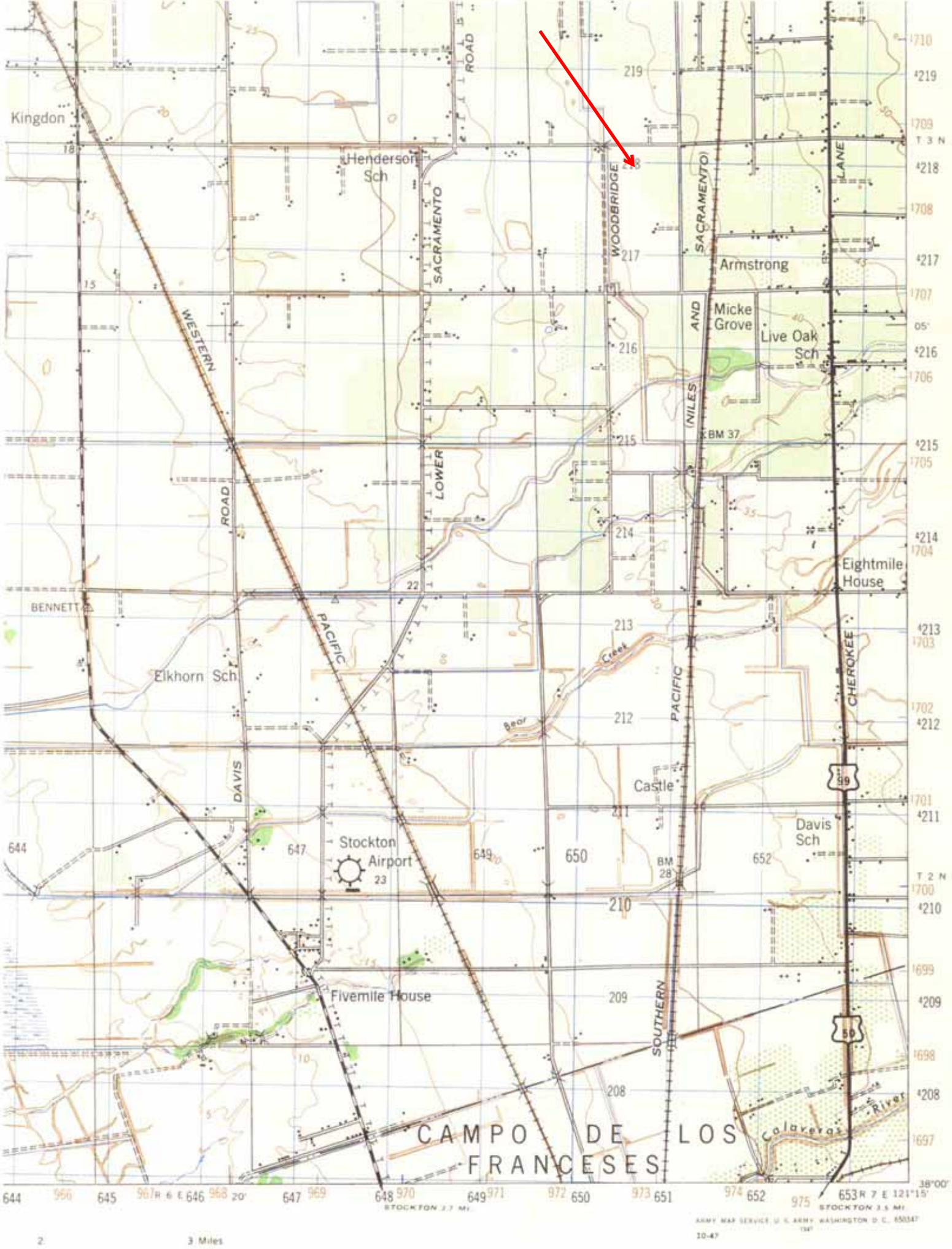
BD-3
14
13
23
24
1940

1952

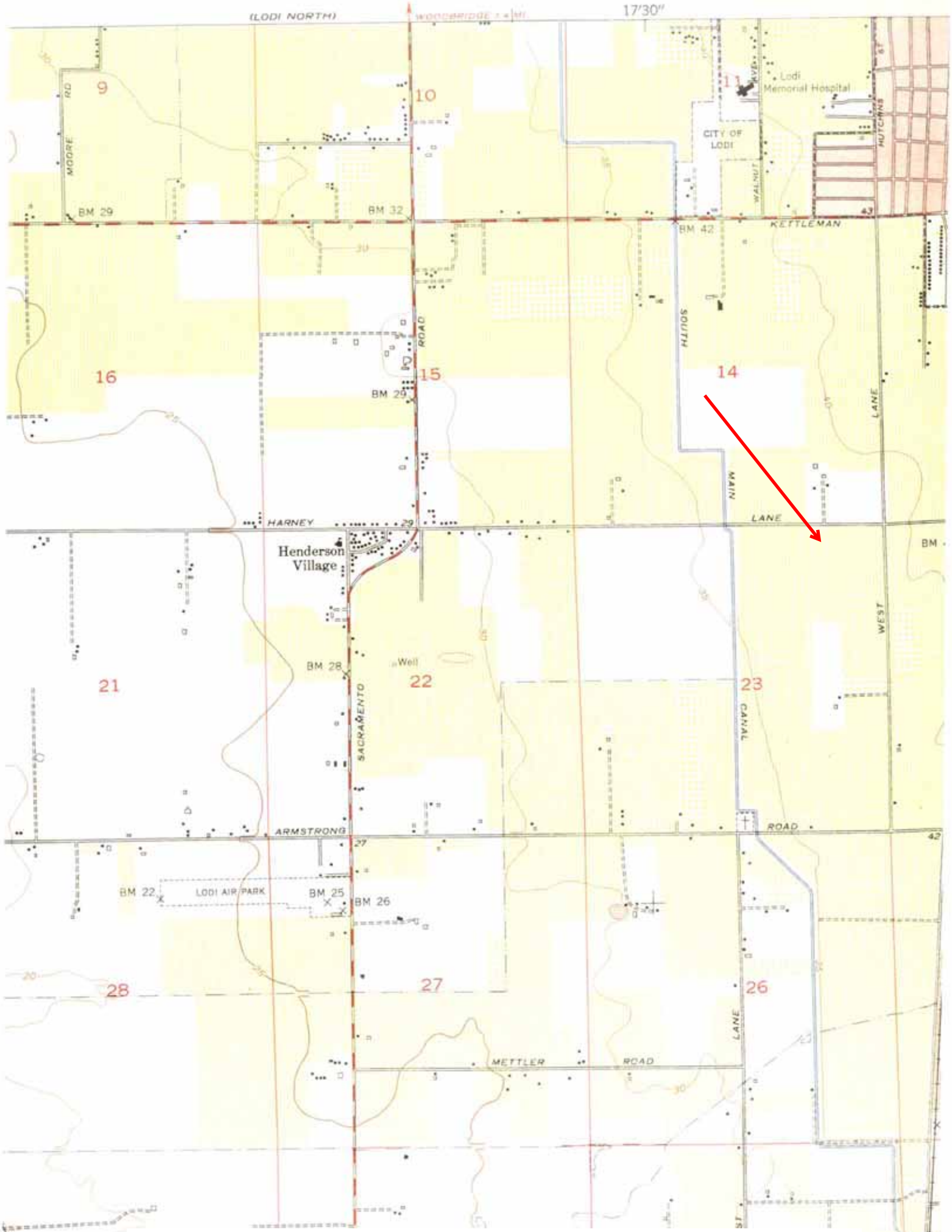
14
13
23
24
SOUTHERN PACIFIC R.R.
WEST LANE
1963

1975

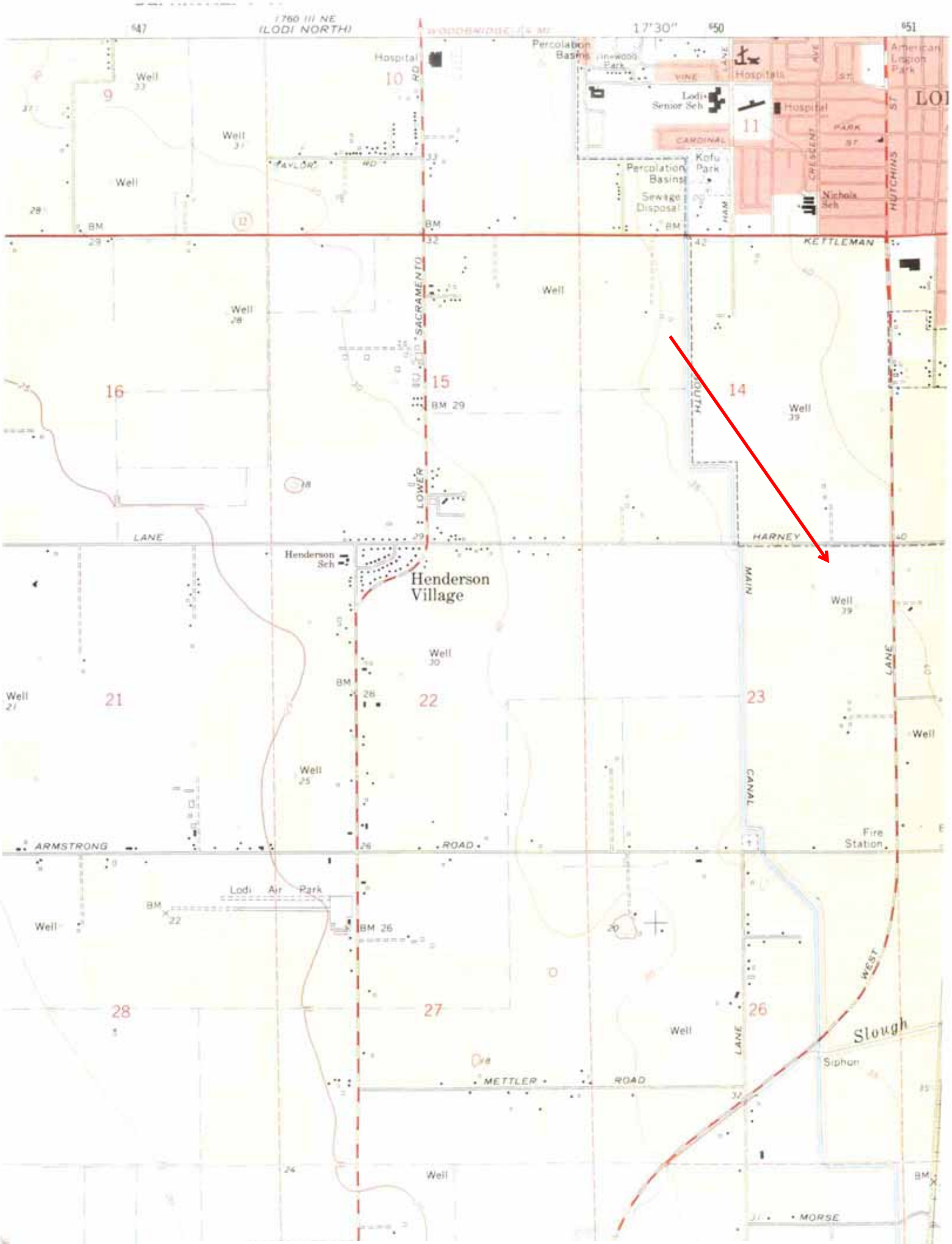
1983



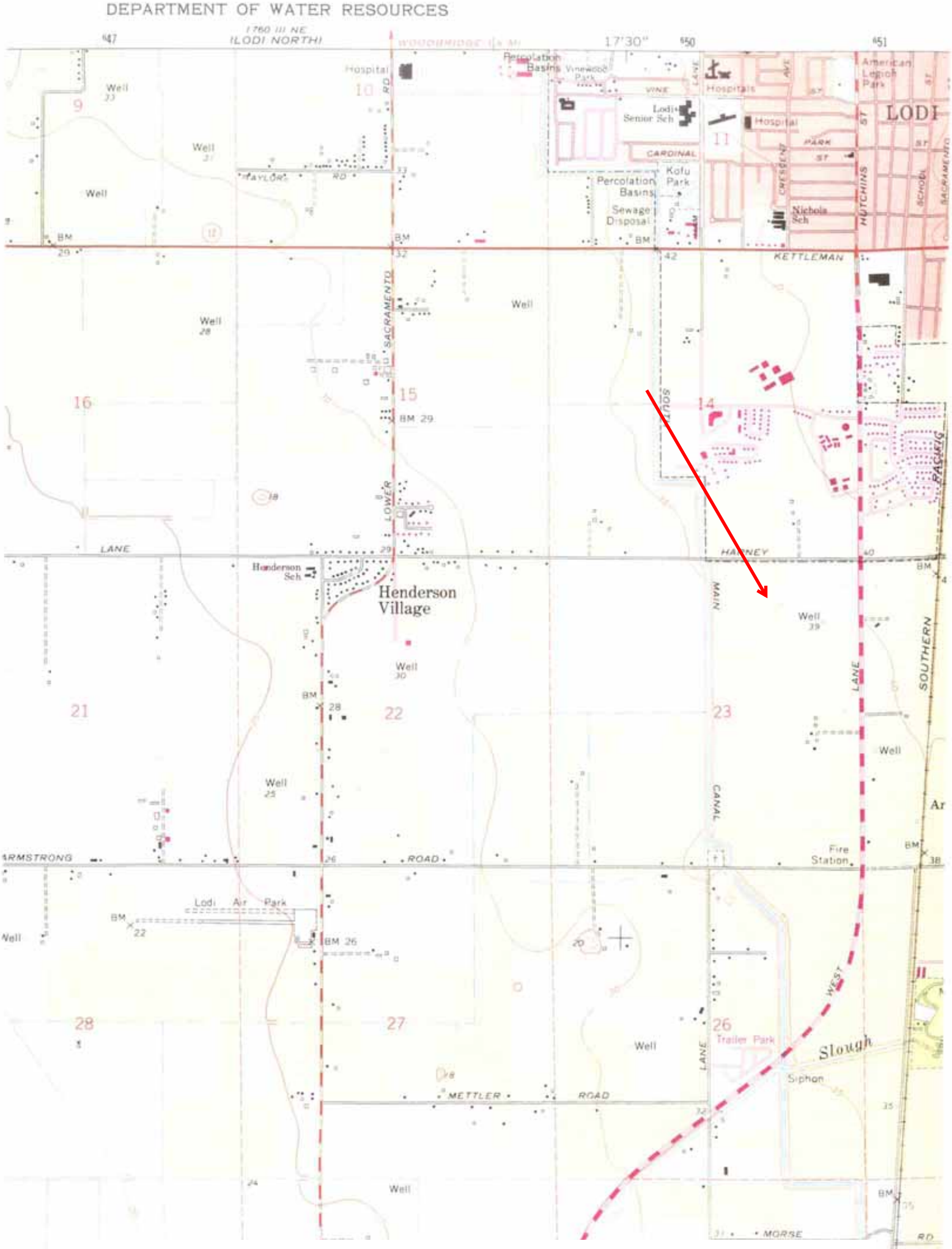
Target Quad: Lodi South Year:1947 Series: 15' Scale: 1:50,000



Target Quad: Lodi South Year:1953 Series: 7.5' Scale: 1:24,000



Target Quad: Lodi South Year:1968 Series: 7.5' Scale: 1:24,000



Target Quad: Lodi South **Photorevised 1968-1976** **Series: 7.5'** **Scale: 1:24,000**

Figure 1 – From the northwest side of the property facing east, towards the structure on the property.

Figure 2 – View of the driving range along the western property line facing south.

Figure 3 – Interior view of the structure on the property.

Figure 4 – Maintenance shop area. Soil stains observed.

Figure 5 – View of storage area RV and trash pile on the property.

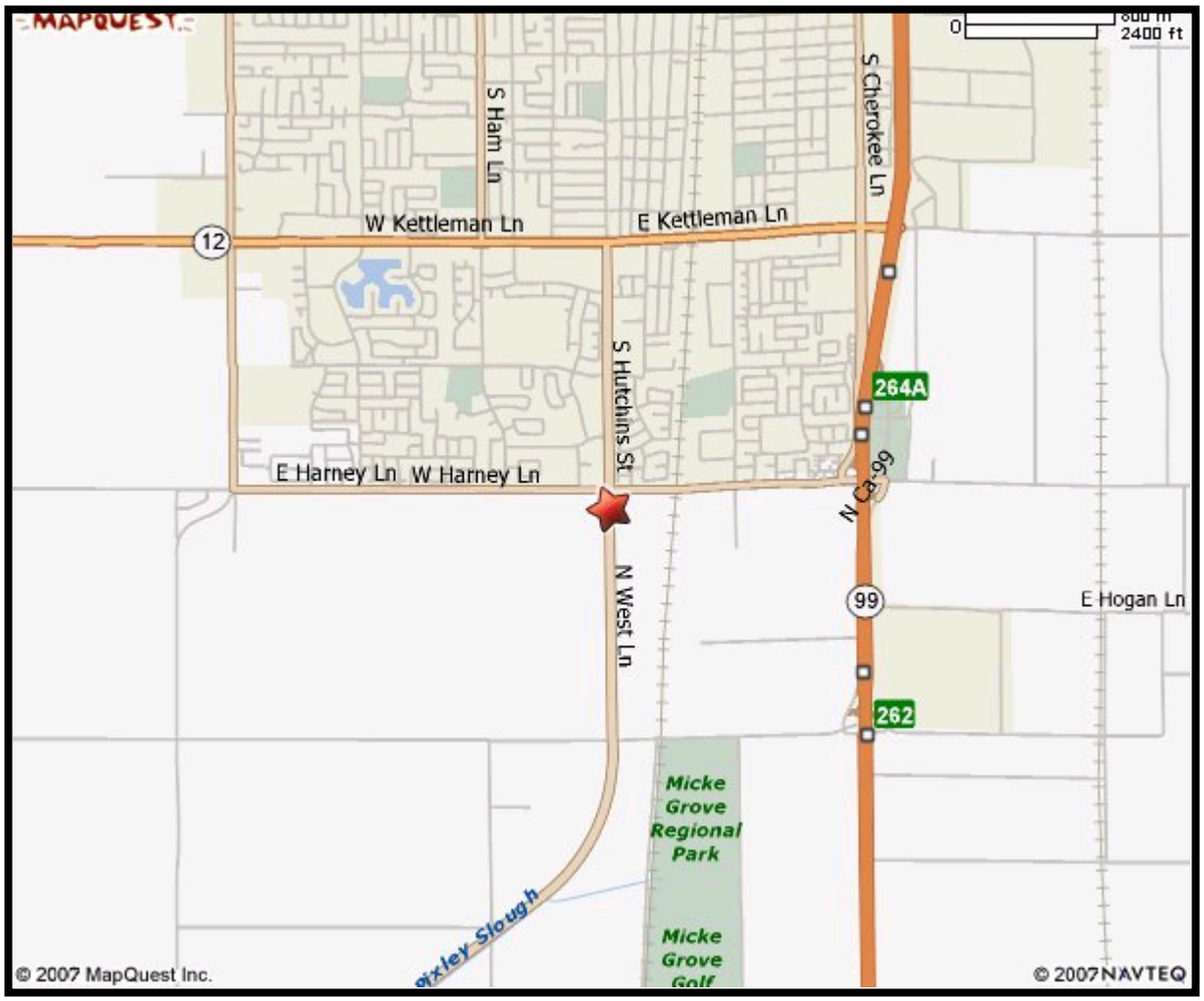
Figure 6 – View near the northeast corner of the property, facing west.

Figure 7 – View of trash pile on the strawberry field.

Figure 8 – Irrigation well on the property.

Figure 9 – Motor oil and antifreeze containers leaking through the cardboard onto the soil beneath.

Figure 10 – Near the southeast corner of the property, facing north.



NEIL O. ANDERSON
AND ASSOCIATES

CORPORATE OFFICE
902 INDUSTRIAL WAY
LODI, CALIFORNIA 95240
PHONE: (209) 367-3701
FAX: (209) 333-8303

SACRAMENTO
MODESTO
FERNLEY

GEOTECHNICAL
ENVIRONMENTAL
GROUNDWATER
INSPECTIONS & TESTING
LABORATORY SERVICES
POOL ENGINEERING
POST TENSION DESIGN
www.noanderson.com

Copyright © 2007 Neil Anderson - All Rights Reserved

Vicinity Map

Harney Lane 30-Acre Site
2800 East Haney Lane
Lodi, California

DATE: 8-22-07
JOB NUMBER: E07137A
SCALE: Not to scale
DRAWN BY: T.C.
CHECKED BY: A.R.
SHEET: 1

Details:

- Subject Property Boundaries
- Photo Location
- Number of Pole-Mounted Transformers
- Existing Well

Base Map: Terra Server Map, 2002

NEIL O. ANDERSON
AND ASSOCIATES

CORPORATE OFFICE
902 INDUSTRIAL WAY
LODI, CALIFORNIA 95240
PHONE: (209) 367-3701
FAX: (209) 333-8303

SACRAMENTO
MODESTO
FERNLEY

GEOTECHNICAL
ENVIRONMENTAL
GROUNDWATER
INSPECTIONS & TESTING
LABORATORY SERVICES
POOL ENGINEERING
POST TENSION DESIGN
www.noanderson.com

Copyright © 2007 Neil Anderson - All Rights Reserved

Site Map & Photo Location Guide

Harney Lane 30-Acre Site
2800 East Harney Lane
Lodi, California

DATE: 8-22-07
JOB NUMBER: E07137A
SCALE: Not to scale
DRAWN BY: T.C.
CHECKED BY: A.R.
SHEET: 2

NEIL O. ANDERSON
AND ASSOCIATES

GEOTECHNICAL
ENVIRONMENTAL
INSPECTIONS & TESTING
LABORATORY SERVICES
POOL ENGINEERING
POST TENSION DESIGN

Phase I ESA Questionnaire
NOA Project Number: E07137A

PHASE I ENVIRONMENTAL SITE ASSESSMENT - USER QUESTIONNAIRE
Harney Lane 30-Acre Site
Harney Lane
Lodi, California
APN:

At your request, Neil O. Anderson & Associates, Inc. (NOA) is preparing a Phase I Environmental Site Assessment (Phase I ESA) for the above property. Please complete the following questionnaire and either fax or email it to NOA for inclusion in the Phase I ESA report. The fax number is (209) 369-4228, or email it to tina@noanderson.com.

REQUIRED QUESTIONS

In order to qualify for any of the Landowner Liability Protections (LLPs) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "Brownfields Amendments"), the user of the Phase I ESA must provide the following information (if available) to the environmental professional. Failure to provide this information could result in a determination that "all appropriate inquiry" is not complete.

		Yes	No
1.	**Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25).**		
	Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law? *(If yes, please discuss and attach relevant documentation.)*	☐	☒
2.	**Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26).** Are you aware of any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law? *(If yes, please discuss and attach relevant documentation.)*	☐	☒

	Yes	No
3. Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28).		
As the user of this ESA do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business? *(If yes, please discuss and attach relevant documentation.)*	☐	☒
4. Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 CFR 312.29).		
a. Does the purchase price being paid for this property reasonably reflect the fair market value of the property?	☐	☐ N/A
b. If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property? *(If yes, please discuss and attach relevant documentation, if any.)*	☐	☐ N/A
5. Commonly known or reasonably ascertainable information about the property (40 CFR 312.30). Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases?	☐	☒
For example, as user, a. Do you know the past uses of the property? *(If yes, please discuss and attach relevant documentation, if any.)*	☐	☒
b. Do you know of specific chemicals that are present or once were present at the property? *(If yes, please discuss and attach relevant documentation, if any.)*	☐	☒
c. Do you know of spills or other chemical releases that have taken place at the property?	☐	☒
d. Do you know of any environmental cleanups that have taken place at the property?	☐	☒

©2007 Neil O. Anderson & Associates, Inc

	Yes	No
6. The degree of obviousness of the presence of likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31).		
As the user of this ESA, based on your knowledge and experience related to the property, are there any obvious indicators that point to the presence or likely presence of contamination at the property?	☐	☒

ADDITIONAL QUESTIONS

The following additional questions will assist the environmental professional in preparation of the Phase I ESA report.

1. Why have you requested this Phase I ESA?

   ☐ Qualify for Landowner Liability Protection

   ☒ Other Reason Considering development

2. What is your relationship to the subject property?

   ☐ Buyer ☐ Lender

   ☐ Seller ☒ Other Limited Partner, manger : duly authorized

3. a. What type is the subject property?

   ☐ Commercial ☒ Agricultural ☐ Vacant

   ☐ Residential ☐ Industrial ☐ Other_____

   b. What type of transaction is involved?

   None

4. Provide the complete and correct address of the property (if not indicated on page 1).

   13333 East Harney Lane
   Lodi, Ca 95240

	Yes	No
5. Are you aware of any former addresses or previous assessor's parcel numbers (APNs) for the subject property? Include previous addresses/APNs even if subject property was split from a larger parcel. *(If yes, please discuss.)*	☐	☒
6. Do you have any other knowledge or experience with the property that may be pertinent to this investigation (for example, copies of previous environmental assessments, correspondence, etc. concerning the property and its environmental condition)? *(If yes, please discuss and attach relevant documentation, if any.)*	☒	☐

Phase 1 perfomed on the 15 wastern acres
Known as the golf driving range.

©2007 Neil O. Anderson & Associates, Inc

7. What is the proposed future use of the subject property?
   retail commercial / office

8. Identify all additional parties who will rely on the Phase I ESA report (if any).
   N/A

9. Identify the site contact and how the contact can be reached.

   Name: Michael Carouba

   Address: 18826 W. Lower Sac Rd #E
   Woodbridge, Ca 95258

   Phone: 327-7700

   Relationship to property:
   Son in Law & Limited Partner

DOCUMENTS/PROCEEDINGS

The following questions refer to documents or proceedings with regard to the subject property of which the user may be aware.

		Yes	No	Copies to be provided?
1.	**Available Documents** Are you aware of the existence of any of the following documents for the subject property? *If so, please indicate whether you can provide copies of those documents to this office within reasonable time and cost constraints.*			1996 phase 1
a.	Environmental site assessment reports	☒	☐	☒
b.	Environment compliance audit reports	☐	☒	☐
c.	Environmental permits (for example, solid waste disposal permits, hazardous waste disposal permits, wastewater permits, NPDES permits, underground injection permits)	☐	☒	☐
d.	Registrations for underground and above-ground storage tanks	☐	☒	☐
e.	Registrations for underground injection systems	☐	☒	☐
f.	Material safety data sheets	☐	☒	☐
g.	Community right-to-know plan	☐	☒	☐
h.	Safety plans; preparedness and prevention plans; spill prevention, countermeasure, and control plans; etc.	☐	☒	☐

©2007 Neil O. Anderson & Associates, Inc

		Yes	No	Copies to be provided?
i.	Reports regarding hydrogeologic conditions on the property or surrounding area	☐	☒	☐
j.	Notices or other correspondence from any government agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property	☐	☒	☐
k.	Hazardous waste generator notices or reports	☐	☒	☐
l.	Geotechnical studies	☐	☒	☐
m.	Risk assessments	☐	☒	☐
n.	Recorded Activity and Use Limitations (AULs)	☐	☒	☐
2.	**Proceedings Involving the Property** Are you aware of any of the following related to the subject property? *(If so, please attach relevant documentation.)*	☐	☒	☐
a.	Any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property?	☐	☒	☐
b.	Any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the property?	☐	☒	☐
c.	Any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?	☐	☒	☐

ENDORSEMENT:

As the User of the Phase I Environmental Site Assessment being prepared for the property (or the duly authorized representative of such User), I hereby certify that to the best of my knowledge, information, and belief the information disclosed above is true and correct.

Michael Caroulla 8-22-07
Client (user) Signature date

Michael Caroulla
Client (user) Name (Please Print)

Contact Phone Number (209) 327-7700

©2007 Neil O. Anderson & Associates, Inc

NEIL O. ANDERSON
AND ASSOCIATES

GEOTECHNICAL
ENVIRONMENTAL
INSPECTIONS & TESTING
LABORATORY SERVICES
POOL ENGINEERING
POST TENSION DESIGN

Phase I ESA Questionnaire
NOA Project Number: E07137A

PHASE I ENVIRONMENTAL SITE ASSESSMENT -
OWNER/KEY SITE MANAGER QUESTIONNAIRE
Harney Lane 30-Acre Site
2800Harney Lane
Lodi, California
APN: 058-100-03

At the request of Michael Carouba of Coldwell Banker Commercial, The Duncan Co. Inc., Neil O. Anderson & Associates, Inc. (NOA) is preparing a Phase I Environmental Site Assessment (Phase I ESA) for the above property. As the owner of the property, we ask that you designate a "key site manager" or person with the most knowledge of the property to complete this form (or complete it yourself if you are the most knowledgeable person). The designated person should complete the following questionnaire and either fax or email it to NOA for inclusion in the Phase I ESA report. The fax number is (209) 369-4228, or email it to tina@noanderson.com.

GENERAL INFORMATION

1. Current owner of property

   Name: FFLP

   Address: 540 S. Mills Ave
   Lodi, Ca 95242

   Telephone: 368-6815

   Year purchased: 1987

2. Previous owner(s) and contact information (if known):

   Name:

   Address: Not available

   Telephone:

   Year purchased:

3. Other person with historical knowledge of property (if known):

   Name:

   Address:

   Telephone:

   Relationship to property:

4. Please describe current use(s) of property:
   15 acres Strawberry Farm 15 acres golf driving range

5. Please describe any other known past use(s) of property, and approximate dates of each use:

6. Please describe any other relevant historical information in your possession concerning the subject property.

	Yes	No
7. Are you aware of any former addresses or previous assessor's parcel numbers (APNs) for the subject property? Include previous addresses/APNs even if subject property was split from a larger parcel. *(If yes, please discuss.)*	☐	☒
8. Are there any businesses using any portion of the property which are operated by an entity other than the property owner (including a tenant farming operation)? If yes, please provide contact name and phone number for each:	☒	☐

Tong Teha 612-5985 Farmer / Darlene Moon 333-8172 driving range

9. To the best of your knowledge has the property ever been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?	☐	☒
10. To the best of your knowledge has any adjoining property ever been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?	☐	☒
11. Do you have any knowledge of the past or current existence of hazardous substances or petroleum products with respect to the property or any facility located on the property?	☐	☒

©2007 Neil O. Anderson & Associates, Inc

	Yes	No
12. Are there any electrical transformers or capacitors on the property which are known to contain PCBs (polychlorinated biphenyls), or which may have been manufactured before 1980 and whose PCB content is unknown?	☐	☒

13. Water is provided to the property by:

☒ A Well ☐ Irrigation District
☐ Public Water System ☐ None Available

Approximate age of system:

14. Waste water disposal is provided to the property by:

☒ On-Site Septic System ☐ None Available
☐ Public Sewer System

Approximate age of system:

15. Are there any wastewaters generated and/or disposed of on the property other than storm water runoff and domestic sewage? Please describe. (Please attach copies of any wastewater discharge permits or licenses pertaining to operations on the property.)	☐	☒
16. Are there any other types of liquid wastes or solid wastes generated at the property? Please describe how they are handled and disposed of. (Please attach copies of any waste disposal permits or licenses pertaining to operations on the property.)	☐	☒
17. Are there any activities on the property which generate air pollutants, including fuel burning equipment? Please describe. (Please attach copies of any air permits or licenses pertaining to operations on the property.)	☐	☒

©2007 Neil O. Anderson & Associates, Inc

STRUCTURES	Yes	No
1. Are there currently any structures on the property?		
For each existing building, please provide type of building and date of original construction and any substantial renovations: modular building serving as driving range office.	☒	☐
2. To the best of your knowledge, have there been any structures on the property in the past which have since been removed?	☐	☒
For each building known to have been removed, please provide type of building and approximate dates the building existed:		
3. How are the structures heated and cooled (e.g., central, wall-mounted unit, space heaters, etc.), and what powers the heating and cooling devices (e.g., electric, propane, fuel oil tank, fireplace, etc.)?		
4. Are there any currently, or the best of your knowledge have there been previously, any flooring, drains, or walls located within the facility that are stained by substances other than water or are emitting foul odors?	☐	☒
6. If any buildings were constructed prior to 1980, is there any currently or was there previously lead-based paint applied to the building(s)?	☐	☒
a. If so, has a survey been conducted to assess the type, amount, location and condition of lead-based paint? (Please attach a copy of any survey report.)	☐	☒

STORAGE TANKS AND OTHER CHEMICAL STORAGE		
1. Are there currently, or to the best of your knowledge have there been previously, any registered or unregistered gasoline, diesel, fuel oil or other chemical storage tanks (above or underground) located on the property?	☐	☒
2. Are there any pesticides, paints, or other chemicals stored or used on the property in drums, sacks, or other containers greater than 5 gallons each or 50 gallons in the aggregate?	☐	☒
3. If the answer to either question is "yes," please answer the questions below:		
a. For each tank, please list substance stored and tank capacity:		

©2007 Neil O. Anderson & Associates, Inc

		Yes	No
b.	Have the tanks been inspected or tested for leakage? When was the most recent test? What were the results? *(Please attach copies of results if available.)*	☐	☐
c.	For other storage containers, please describe the substances, quantities stored, and types of containers.		
e.	Please attach copies of any permits or licenses pertaining to the use, storage, handling, or disposal of chemicals on the property.		
4.	Have there been any spills, leaks, or other releases of chemicals on the property? *If so, please describe the chemicals and quantities released, any cleanup measures taken, and the results of any soil or groundwater samples performed to detect the presence of chemicals spilled, leaked, or released on the property.*	☐	☒

INDUSTRIAL PROPERTIES

1.	Is the property currently used for any industrial purpose?	☐	☒
2.	Has the property ever been previous used for an industrial purpose (other than the current use)?	☐	☒
3.	If the answer to either question is "yes," please answer the following:		
a.	Has the property been used for disposal of any liquid or solid waste?	☐	☐
b.	Have evaporation or storage ponds been located on the property?	☐	☐
c.	Have waste water treatment facilities, such as acid neutralization vaults, been located on the property?	☐	☐
d.	Are there raw chemical or waste chemical storage areas on the property?	☐	☐

If any of questions 3.a-d are answered "yes," please provide a description, including the location of all disposal sites, treatment facilities and storage areas, the type of chemicals or wastes handled at each site, the results of any soil or groundwater samples taken in the vicinity of each site, and the manner in which each site not presently in use was closed.

©2007 Neil O. Anderson & Associates, Inc

AGRICULTURAL PROPERTIES

		Yes	No
1.	Is the property currently used for agricultural purposes, other than grazing or pasture land?	☒	☐
2.	To the best of your knowledge, has the property been used in the past for agricultural purposes, other than grazing or pasture land?	☒	☐
3.	If the answer to either question is "yes," please answer the following:		
a.	Have pesticides, herbicides or other agricultural chemicals been applied to the property? If so, please describe the locations where such pesticides, herbicides or chemicals were applied, and the type of pesticides, herbicides or chemicals applied in each area. *(Please attach copies of pesticide use reports if available.)*	☐	☐ No Knowledge
b.	Have pesticides, herbicides or other agricultural chemicals been mixed, formulated, rinsed, or disposed of on the property? *If so, please describe the locations where such pesticides, herbicides or chemicals were mixed, formulated, rinsed, or disposed, and the type of pesticides, herbicides or chemicals mixed, formulated, rinsed or disposed of at each location.*	☐	☐ No Knowledge
c.	Has any soil or groundwater analysis been performed to detect pesticides, herbicides or chemicals used at the site? *If so, please provide a summary of the findings or attach the report(s).*	☐	☐ No Knowledge

DOCUMENTS/PROCEEDINGS

		Yes	No	Copies to be provided?
1.	**Available Documents** Are you aware of the existence of any of the following documents for the subject property? *If so, please indicate whether you can provide copies of those documents to this office within reasonable time and cost constraints.*			
a.	Environmental site assessment reports	☒	☐	☒ phase 1 1996
b.	Environment compliance audit reports	☐	☒	☐
c.	Environmental permits (for example, solid waste disposal permits, hazardous waste disposal permits, wastewater permits, NPDES permits, underground injection permits)	☐	☒	☐
d.	Registrations for underground and above-ground storage tanks	☐	☒	☐

©2007 Neil O. Anderson & Associates, Inc

		Yes	No	Copies to be provided?
e.	Registrations for underground injection systems	☐	☒	☐
f.	Material safety data sheets	☐	☒	☐
g.	Community right-to-know plan	☐	☒	☐
h.	Safety plans; preparedness and prevention plans; spill prevention, countermeasure, and control plans; etc.	☐	☒	☐
i.	Reports regarding hydrogeologic conditions on the property or surrounding area	☐	☒	☐
j.	Notices or other correspondence from any government agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property	☐	☒	☐
k.	Hazardous waste generator notices or reports	☐	☒	☐
l.	Geotechnical studies	☐	☒	☐
m.	Risk assessments	☐	☒	☐
n.	Recorded Activity and Use Limitations (AULs)	☐	☒	☐

2. **Proceedings Involving the Property**
Are you aware of any of the following related to the subject property? *(If so, please attach relevant documentation.)*

a.	Any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property?	☐	☒	☐
b.	Any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the property?	☐	☒	☐
c.	Any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?	☐	☒	☐

©2007 Neil O. Anderson & Associates, Inc

ENDORSEMENT:

As the present owner of the property or as an officer or general partner of the present owner of the property (or the duly authorized representative of such owner), I am familiar with all of the operations presently conducted on the property, and hereby certify that to the best of my knowledge, information, and belief the information disclosed above is true and correct.

I grant Neil O. Anderson & Associates permission to enter the subject property, including all structures on the property, as necessary to complete the Phase I report. I understand that I will be given appropriate notice before the date of the site inspection at the phone number provided below.

Michael Carouba 8-22-07
Signature date

Michael Carouba
Name (Please Print)

Limited Partner, manager & duly authorized
Relationship to property

Contact Phone Number (209) 327-7700

©2007 Neil O. Anderson & Associates, Inc

Appendix F: Water Supply Assessment

SOUTH HUTCHINS STREET ANNEXATION

Draft Water Supply Assessment

November 2010

Prepared by:
City of Lodi
Public Works Department
221 West Pine Street
Lodi, CA 95240

TABLE OF CONTENTS

A. Introduction……1

B. Supply Assessment Process…….....3

C. Supply and Demand Documentation…… 5

D. Demand Effects of the Project..... 27

E. Conclusion and Recommendations..... 30

Appendix A: Agreement for Purchase of Water

List of Tables

Table 1 – Summary of Proposed Land Uses 1
Table 2 – Annual Portable Water Supplies Sources 5
Table 3 – Current and Planned Water Supplies.....5
Table 4 – Project Demands by Land Use and Area 28
Table 5 – Demand Projection Using 2004 as the Base Year 28
Table 6 - Water Balance Calculation 29

List of Figures

Figure 1 – Proposed Project Site 2
Figure 2 – Lodi General Plan Land Use Diagram 4

A. INTRODUCTION

Senate Bill 610, which went into effect in January 2002, requires public water agencies to prepare a Water Supply Assessment (WSA) for large projects including commercial projects employing more than 1,000 persons or having more than 250,000 square feet of floor space. This bill was designed to promote better communication between water agencies and planning agencies to ensure sufficient water supplies for new development.

The South Hutchins Street Annexation (Project) meets the criteria as defined in California Water Code 10912 to be classified as a "Project" as follows:

a. Development of a shopping center/business/professional center that may have more than 250,000 square feet of floor space.
b. Development of the Project is expected to generate employment positions greater than 1,000 persons.

The Project is located on a 28.73 acre site, which lies outside of the current City boundaries but within the City of Lodi's sphere of influence. The Project, as presented in Figure 1, includes a mix of retail and office uses including the infrastructure needed to support future development of the site. The Project would include the following land uses: a retail center, a restaurant and medical office uses. In total, implementation of the Project would result in the development of up to 103,350 square feet (sq. ft.) of commercial/retail use, 6,400 sq. ft. of restaurant use, and 179,200 sq. ft. of office space, including 3,000 sq. ft. of laboratory space. The Project is expected to generate an estimated 1,125 employment positions of various types.

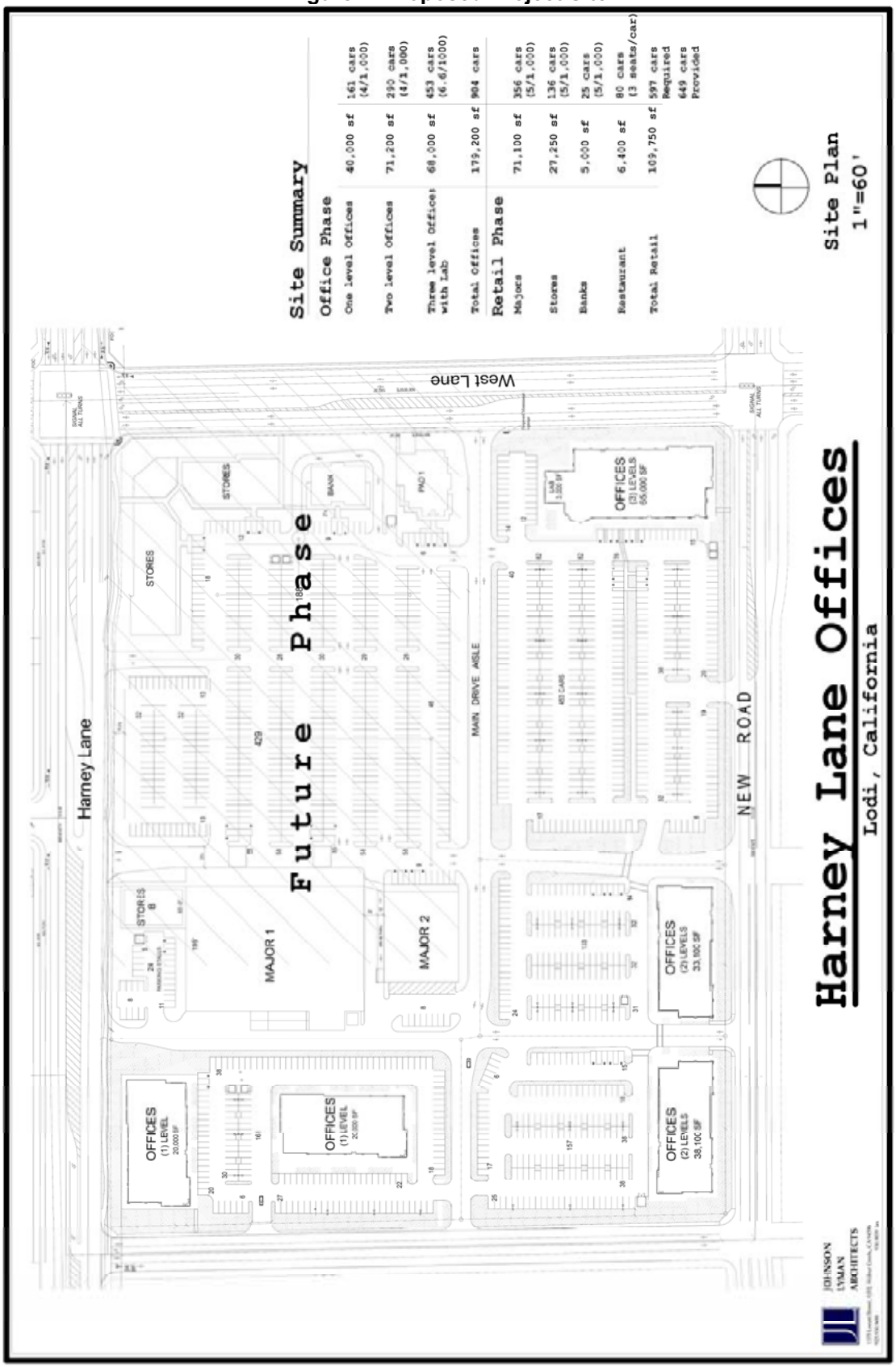
TABLE 1: SUMMARY OF PROPOSED LAND USES

Land Uses	Area (sf)
Retail	
Large retail store	71,100
Smaller accessory commercial stores	27,250
Bank	5,000
Total	**103,350**
Restaurant	
Restaurant	6,400
Total	**6,400**
Office	
Office	111,200
Office with lab	68,000
Total	**179,200**

SOURCE: Johnson Lyman Architects, 2008

The intended land uses satisfy the criteria of Project and the need for a WSA. This WSA format follows the format in the "Draft Guidebook for Implementation of SB 610 & SB 221 of 2001" prepared by the California DWR.

Figure 1: Proposed Project Site



Source: Johnson Lyman Architects

B. SUPPLY ASSESSMENT PROCESS

The following elements of the Project require that a WSA be prepared.

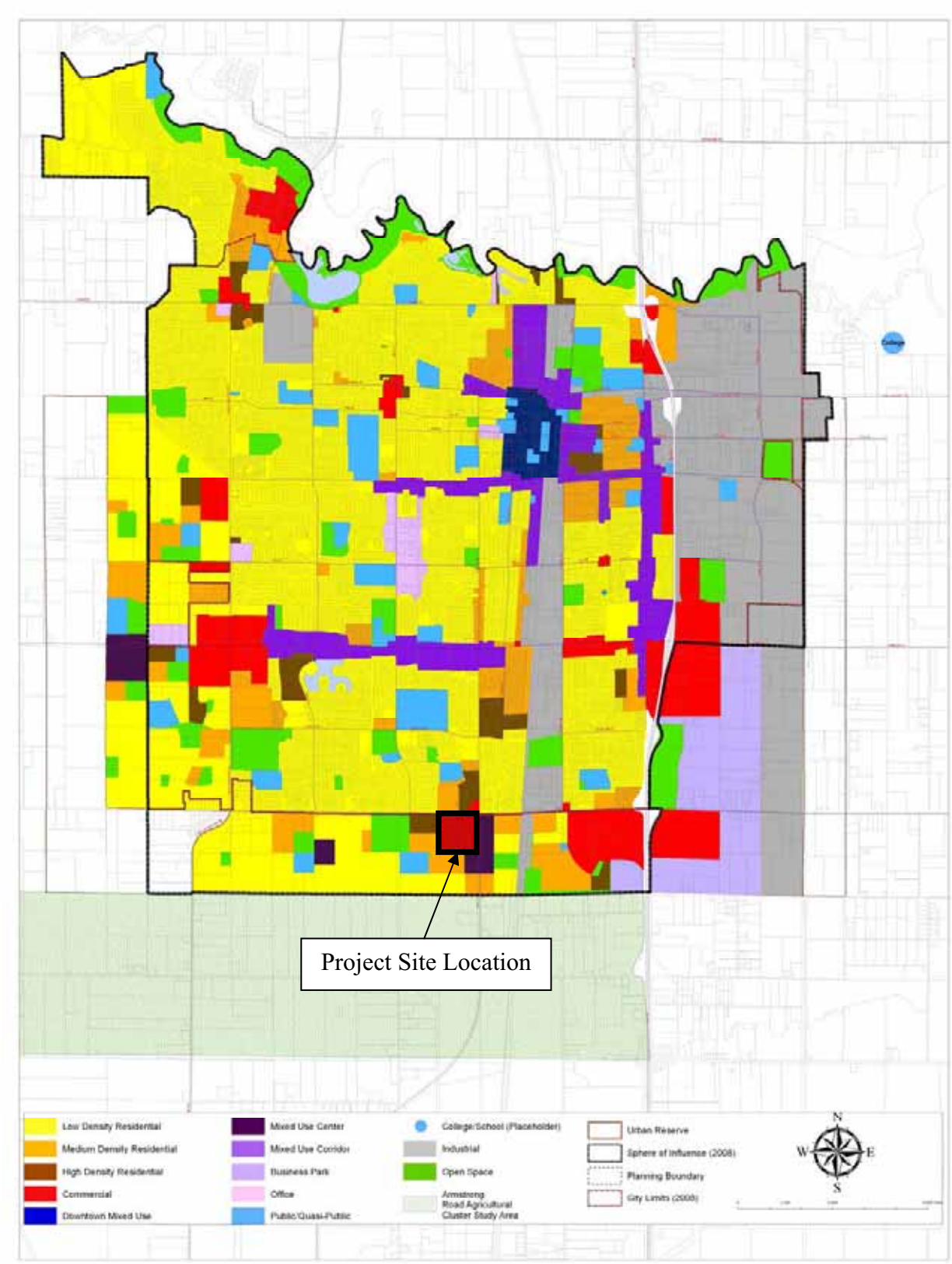
- The Project is subject to SB-610 because it proposes the development of 288,950 sq. ft. of mixed use center.
- The Project is expected to generate up to 1,125 employment positions.
- The Project is in the initial planning stages and no subdivision maps have been prepared for the property. Therefore, the Project is not subject to SB-221.
- The City of Lodi is the "water supplier" for the Project.
- The Project has not been the subject of another WSA.
- The City of Lodi adopted an Urban Water Management Plan (UWMP) in 1990 and updated the Plan in 1995 and in 2005.

The City of Lodi provides water service to the existing developed area. The Project is not within the City limits but is contiguous to the City on the south side of Harney Lane so the distance for any extension of service would be very short. Although currently outside the city limits, the project area is within the City's sphere of influence and has been considered in the City's planning and was included in the 2005 Urban Water Management Plan and the 2010 Lodi General Plan. Figure 2 presents the 2010 Lodi General Plan and the sphere of influence.

This WSA addresses the California Water Code pertaining to the preparation of WSA's and is strictly an assessment of the City's ability to provide water service to the Project. This WSA does not constitute an agreement to serve water to the South Hutchins Annexation Project.

The City-adopted 2005 Urban Water Management Plan is the reference source for much of the information presented in this WSA. This document is considered appropriate on the basis that historic growth rates in the City average one percent per year and since 2006 water service demands have decreased by approximately eight percent.

Figure 2: Lodi General Plan Land Use Diagram



Source: City of Lodi General Plan, 2010

C. SUPPLY AND DEMAND DOCUMENTATION

1. WATER SUPPLIES

The City adopted a Water Master Plan in 1987 intended to cover a 20-year period. The Plan indicated that the water supply was from groundwater provided at that time by 21 out of 24 wells. At that time, Well 12 was out of service due to potential contamination from gasoline but the problem was not expected to cause replacement of the well. Also Wells 3 and 11 were out of service due to potential contamination by dibromochloropropane (DBCP), a commonly used fumigant and nematocide that had been identified as a potential contaminant in some of the water system wells at the time. The Plan stated that six wells were equipped with standby power and five wells had permanent chlorination equipment.

The 1987 Water Master Plan indicated that the City considered nontreatment and treatment methods to resolve the DBCP condition. Nontreatment alternatives considered were well replacement, well rehabilitation and blending with quality groundwater. Treatment alternatives of air stripping, granular activated carbon absorption, ultraviolet irradiation with ozonation and ultraviolet irradiation with hydrogen peroxide were considered.

Currently the City still uses groundwater as its sole source of supply, however, in 2003 a contract for a surface water supply was executed with the Woodbridge Irrigation District that will begin construction of the facility in 2011. The City water utility operates 27 wells. All wells are equipped to provide emergency chlorination and seven wells are equipped with granular activated carbon for removal of DBCP. Standby power has been installed at seven wells and is readily available in the event of a power outage.

The City plans to update the Water Master Plan in 2011. The new master plan will address expansion of the delivery and supply systems to serve demands over the next 20 to 40 years.

Table 2 identifies the type of the City's water source and whether it is by water right or by service contract and if the source of supply has been used.

TABLE 2: ANNUAL PORTABLE WATER SUPPLIES SOURCES

Supply	Quantity (AFY)	Water Supply Type	Ever used
Groundwater[1]	Well Capacity[2]	Right	Yes
WID Surface Water[3]	6,000	Contract	No

1. The City currently uses groundwater as its sole source of supply. The City overlies a portion of the San Joaquin Valley groundwater basin, which is not currently adjudicated.
2. The City/Utility operates 27 groundwater production wells. The 27 wells that currently provide water to the City have a combined capacity of 36,810 gallons per minute (GPM) or 53.0 million gallons per day (MGD).
3. The City entered into an agreement with Woodbridge Irrigation District (WID) to purchase 6,000 acre-feet per year (AFY) of surface water for a period of 40 years.

Source: Urban Water Management Plan, 2010

Table 3 identifies the water sources and water quantities used and planned to be used by the City from each of the sources identified in Table 2 in five-year increments from 2005 to 2030.

Table 3: CURRENT AND PLANNED WATER SUPPLIES

Source	2005	2010	2015	2020	2025
Groundwater, AFY	17,300	15,000	15,000	15,000	15,000
WID Contract, AFY	0	6,000	6,000	6,000	6,000
Totals AFY	**17,300**	**21,000**	**21,000**	**21,000**	**21,000**

Recycled water used for irrigation not included.
Source: Urban Water Management Plan, 2010

As noted in the 2005 UWMP, the City has no additional water supply projects planned and has little or no opportunity for transfers or exchanges. The City, however, has executed a contract to purchase surface water with the intent to incorporate 6,000 AFY into the City water supply before 2012.

2. WHOLESALE WATER SUPPLIES

The City currently uses groundwater supplies solely for its potable water; however, on May 13, 2003 the City executed an agreement with the Woodbridge Irrigation District to purchase 6,000 AFY of surface water for a period of 40 years. On January 16, 2008, the City amended the WID Water Sales Agreement to include a four-year extension to 2047 and four years additional banking (total 42,000 acre-feet). The City will begin construction of the new Water Treatment Plant in 2011 and will start using this water supply in 2012.

3. GROUNDWATER SUPPLY

The City uses groundwater as its sole source of water supply. There are currently 27 production wells in operation, which have a capacity of 36,810 gallons per minute or 53.0 million gallons per day (MGD). The 28th well is under construction and will be in operation in 2011. The City delivered 15.19 MGD in 2004. The average day demand from 1995 to 2004 was 14.94 MGD and the maximum day demand was 28.62 MGD, which provides a ratio of 1.90 as a peaking factor that can be used to scale annual demand projections to maximum day demands.

The City has long pursued a strategy of using wells to meet peak flow and fire flow demands. By doing so, the City has been able to reduce the pipe size of the water distribution system and negate the need for surface water storage. Ratepayers have benefited with reduced infrastructure and maintenance costs. The reliance on groundwater for peak flows is likely to remain a standard strategy as the large groundwater basin size and recharge rates are such that the impact of short-term high demands will be negligible.

4. GROUNDWATER SUPPLY PROJECTIONS

Excerpt from Chapter 3 of the 2005 UMWP: 3.2.2 Future Groundwater Supply.
The continuing decline in observed groundwater levels means the sustainable annual groundwater supply available to the City will likely be lower than current levels. As a member of GBA (Groundwater Banking Authority) the City is participating in the development of policies and programs, including groundwater recharge and conjunctive use programs, intended to help eliminate the overdraft condition. Additionally, the City plans to reduce its overall pumping in the future. A safe yield of approximately 15,000 AFY (Treadwell and Rollo 2005) has therefore been estimated on water balance calculations performed using data primarily from the Eastern San Joaquin Groundwater Management Plan (Appendix F). For purposes of this UWMP, 15,000 AFY has therefore been assumed as the amount of groundwater available during all future (post-2005) years. Although rigorous scientific analyses have not been performed, the City projects some recharge of the groundwater basin will occur as the amount of groundwater pumped annually decreases. This result, however, is contingent on the efforts of all groundwater users in the region, including other cities, agriculture, and private well owners, to reduce groundwater extraction… The amount of groundwater projected to be pumped over the next 25 years is presented in Table 3-4.

Table 3-4: Projected Groundwater Pumping (Guidebook Table 7)

Source	***2005***	***2010***	***2015***	***2020***	***2025***
Annual Volume, AFY	*17,300*	*15,000*	*15,000*	*15,000*	*15,000*

Recycled water used for irrigation not included.

5. SURFACE WATER SUPPLY PROJECTIONS

Excerpt from Chapter 3 of the 2005 UWMP: 3.2.3 Future Surface Water Supply

As discussed in Section 3.1.4, the City recently entered into a 40-year agreement with WID for 6,000 AFY of surface water from the Mokelumne River. The water will be diverted at Woodbridge Dam. The City plans to build the necessary infrastructure to treat and deliver drinking water from this source before 2010. Therefore, 6,000 AFY of treated surface water is included in the supply projections presented in Table 3-5 below. The City is also considering the possibility of purchasing additional surface water supplies from WID; these supplies are not included in Table 3-5 as they are not considered "firm" supplies.

Table 3-5: CURRENT AND PLANNED WATER SUPPLIES (Guidebook table 4)

	2005	***2010***	***2015***	***2020***	***2025***
Groundwater	*17,300*	*15,000*	*15,000*	*15,000*	*15,000*
WID Contract	*6,000*	*6,000*	*6,000*	*6,000*	*6,000*
Totals AFY	***23,300***	***21,000***	***21,000***	***21,000***	***21,000***

6. DEMAND

For the 2005 UWMP, records of historical water production were obtained from the City's Public Works Department. The records included both maximum day and annual water production records. Water production is the volume of water measured at the source and includes all water delivered to residential, commercial, and public connections and also includes unaccounted-for water. The records are available from 1970 at the Public Works Department.

Excerpts below from the 2005 UWMP provide the data outlined in Step 3, Detailing Existing and Planned Future Uses, as presented in the Guidebook for Implementation of SB 610, include pages 2-1 to 2-3, pages 3-1 to 3-8, and pages 4-1 to 4-7 with sections entitled:

Chapter 2 Supplier Service Area
2.1 Service Area Description
2.2 Climate Data
2.3 Other Demographic Factors
2.4 Population Projections (Dept. of Finance)

Chapter 3 Water Supply
3.1 Current Water Supply
- 3.1.1 Background
- 3.1.2 Water Supply Facilities
- 3.1.3 Current Groundwater Supply
- 3.1.4 Current Surface Water Supply
- 3.1.5 Current Recycled Water Supply
- 3.1.6 Water Distribution System

3.2 Future Water Supply
- 3.2.1 Constraints on Existing Supplies
- 3.2.2 Future Groundwater Supply
- 3.2.3 Future Surface Water Supply
- 3.2.4 Future Recycled Water Supply
- 3.2.5 Planned Water Supply Projects

3.3 Exchange or Transfer Opportunities
3.4 Desalinated Water
3.5 Wholesale Supplies

Chapter 4 Water Demand
4.1 Past, Current, and Projected Water Demand

4.1.1 Past and Current Demand
4.1.2 Future Water Demand
4.2 Sales to Other Agencies
4.3 Other Demands
4.4 Total Demands

CHAPTER 2. SUPPLIER SERVICE AREA

2.1 Service Area Description

The City is located in the Northern San Joaquin Valley in San Joaquin County and borders the Mokelumne River. The bulk of the City's geographical area extends from the Mokelumne River on the north, WID South Main Canal and Lower Sacramento Road on the west, Harney Lane on the south, and portions of Highway 99 and Central California Traction (CCT) Railroad on the east. The City's White Slough Water Pollution Control Facility (WSWPCF) lies approximately six miles to the southwest of the City. The City has an estimated 2005 population of 62,467 (California Department of Finance, 2005).

The City of Lodi Water Utility (Utility) is the sole water purveyor for the City of Lodi. The Utility's service area is contiguous with the City boundaries and covers approximately 12 square miles. There are a few minor connections outside the City. The service area includes a mix of residential, commercial, and industrial land use, and is characterized by essentially flat terrain. All future development being considered for the City is expected to occur within the present service area.

2.2 Climate

The City has cool, humid winters, and hot, dry summers. Temperatures average 60°F annually, ranging from average winter morning lows in the upper 30s to average summer afternoon highs in the upper 80s (Western Regional Climate Center, 2005). Relative humidity ranges from 91% in winter months to 26% in summer months. During summer months, temperatures may exceed 100˚F, impacting water demands significantly. Annual rainfall averages approximately 18 inches, with most rainfall occurring between November and April. The combination of warmer temperatures and low precipitation during the summer results in peak water demands during that period. Reference evapotranspiration (ETo) values, which serve as indicators of how much water is required to maintain healthy agriculture and landscaping, range from 0.93 inches during December to 8.06 inches in July. Temperature, rainfall and evapotranspiration averages for the City are presented in Table 2-1.

Table 2-1: Service Area Climate (Guidebook Table 3)[1]

MONTH	JAN	FEB	MARCH	APRIL	MAY	JUNE
Average ET[2] (in)	1.24	1.96	3.41	5.10	6.82	7.80
Average Rainfall[3] (in)	3.47	2.95	2.60	1.35	0.49	0.13
Average Temperature[3] (F)	45.65	50.40	54.15	58.90	64.90	70.30

MONTH	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
Average ET[2] (in)	8.06	7.13	5.40	3.72	1.80	0.93	54.3
Average Rainfall[3] (in)	0.04	0.05	0.30	0.93	2.29	3.03	17.63
Average Temperature[3] (F)	73.70	72.70	69.95	62.60	52.55	45.65	60.12

1. *The term "Guidebook X" refers to the table in the Guidebook to Assist Water Suppliers in the Preparation of a 2005 Urban Water Management Plan by DWR.*
2. *California Irrigation Management Information System (CIMIS).*
3. *Western Regional Climate Center.*

2.3 Other Demographic Factors

Lodi is built on a strong and broad-based agricultural industry with national and industrial markets for its commodities and products. Wines, processed foods, nuts, fruit, and milk are major commodities of the Lodi area and provide the basic material for food processing and packaging. These commodities support the operations of General Mills, and Pacific Coast Producers, three companies in the business of processing local agricultural commodities.

In addition, Lodi has a wide range of small, financially-sound businesses. These companies range in size from 10 to 150 employees and produce a wide variety of products, services, and commodities.

Recently, there has been an increase in industrial and residential development within the City. This new development, combined with the growing strength of the wine/grape industry, is a positive economic indicator for Lodi. Recently, several industries moved to Lodi. These industries collectively have created approximately 850 new jobs. The demographic factors affecting the City's water supply management planning include data on the largest customers, including those listed in Table 2-2 below.

Table 2-2: Large Water Customers

Customers	***2004 Water Use/Mo***	***% Of Total System***
Lodi Unified School District	*150,703,608*	*2.7*
Pacific Coast Producers	*130,632,769*	*2.4*
City of Lodi (incl. parks)	*113,024,617*	*2.0*
General Mills	*69,261,284*	*1.2*
Cottage Bakery	*35,077,460*	*0.6*
Lodi Memorial Hospital	*28,502,316*	*0.5*
Certainteed	*7,763,492*	*0.1*
Valley Industries	*8,334,291*	*0.2*
Wine & Roses	*8,371,534*	*0.2*
Miller Packing Co.	*8,442,676*	*0.2*
TOTAL	***560,114,047***	***10.1%***

2.4 Population Projections

Currently, the City's population is approximately 62,467. Based upon the City's assumed annual population growth rate of 1.5 percent, which was presented in the Lodi Wastewater Master Plan (West Yost & Associates, 2001) and reaffirmed during discussions with City staff, population in 2030 is expected to be approximately 90,636. Population projections from 2005 to 2030 are presented in Table 2-3 below. In addition, Table 2-3 presents population projections based on population growth rates of 1% and 2%; the population projections for these growth rates are provided for comparative purposes only.

Table 2-3: Current and Projected population (Guidebook Table 2)

Population Growth Rate[1]	***2005[2]***	***2010***	***2015***	***2020***	***2025***	***2030***
1.00%	*62,467*	*65,653*	*69,002*	*72,522*	*76,222*	*80,110*
1.50%	*62,467*	*65,653*	*72,496*	*78,098*	*84,134*	*90,636*
2.00%	*62,467*	*65,653*	*76,147*	*84.072*	*92,823*	*102,484*

1. For the purposes of this UWMP, the City has assumed an annual population growth rate of 1.5 percent, used in previous reports (e.g., Wastewater Master Plan) for facilities planning. Growth rates of 1 and 2 percent are shown here for comparative purposes only.
2. California Department of Finance (DoF).

As an additional comparison, the City's existing (1991) General Plan estimated the City's population for 2007 at 71,944 (not including the Planned Residential Reserve area), and 96,589 (including the Planned Residential Reserve area). The higher population estimates presented in the existing General Plan reflect a 1987-2007 growth rate of 2.0%.

CHAPTER 3. WATER SUPPLY

3.1 Current Water Supply

3.1.1 Background

The City currently uses groundwater as its sole source of supply. The City overlies a portion of the San Joaquin Valley groundwater basin, which is not currently adjudicated. The groundwater in the Lodi area exists under unconfined and semi-confined conditions. The Mehrten Formation is the most productive fresh water-bearing unit.

The City is located within the geomorphic province known as the Central Valley, which is divided into the Sacramento Valley and the San Joaquin Valley. The Central Valley is a large, northwestward-trending, asymmetric structural trough that has been filled with several miles of thick sediment (USGS 1986). The City lies within the San Joaquin Hydrologic Basin (DWR, Bulletin 118) that straddles portions of both the Sacramento and San Joaquin Valleys. Sediments of the San Joaquin Valley consist of interlayered gravel, sand, silt, and clay derived from the adjacent mountains and deposited in alluvial-fax, floodplain, flood-basin, lacustrine, and marsh environments. Hydrogeologic units in the San Joaquin Basin include both consolidated rocks and unconsolidated deposits. The consolidated rocks include:

1) The Victor Formation

2) The Laguna Formation

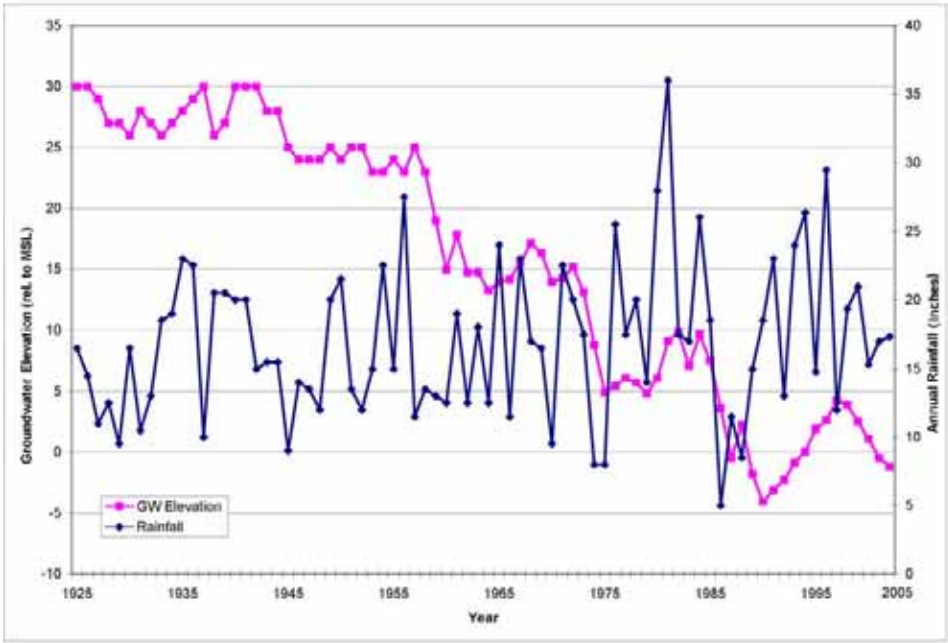
3) The Mehrten Formation

The consolidated rocks generally yield small quantities of water to wells except for the Mehrten Formation, which is an important aquifer (DWR). The unconsolidated deposits include continental deposits, lacustrine and marsh deposits, older alluvium, younger alluvium, and flood-basin deposits. The continental deposits and older alluvium are the main water-yielding units in the unconsolidated deposits.

Groundwater flow direction is generally toward the south in agreement with the regional groundwater flow gradient but may vary from south-southwest to south-southeast with local gradients likely influenced by pumping form municipal supply wells. Pumping tests on municipal wells indicate that they possess a large capture zone, and thus have a large influence upon groundwater flow. Pumping of municipal supply wells in the City is performed between 100 and 500 feet below ground surface (Geomatrix, 2006).

DWR has declared that the groundwater basin underlying Eastern San Joaquin County is overdrafted, and groundwater levels in the County and the City are generally decreasing. The groundwater levels also fluctuate over time depending on precipitation, aquifer recharge, and pumping demands. Groundwater elevations relative to mean sea level (MSL), and the corresponding annual precipitation from 1927 through 2004 are shown in Figure 3-1. Overall, the average annual decrease in groundwater levels from 1927 to 2004 has been 0.39 feet per year. Generally, groundwater elevations have decreased with the increase in population and water production. However, annual rainfall also influences groundwater elevation. The groundwater level increase from 1981 to 1984 can be partially attributed to the increase in annual rainfall from 1981 to 1983. Groundwater elevations for the years 1927 to 1961 were obtained from East Bay Municipal Utilities District (EBMUD) for the City's 12 square mile area. Groundwater elevation data from 1962 to the present were obtained from the City's Public Works Department for Well No. 2, one of the oldest production wells in the City.

FIGURE 3-1 HISTORICAL GROUNDWATER ELEVATION

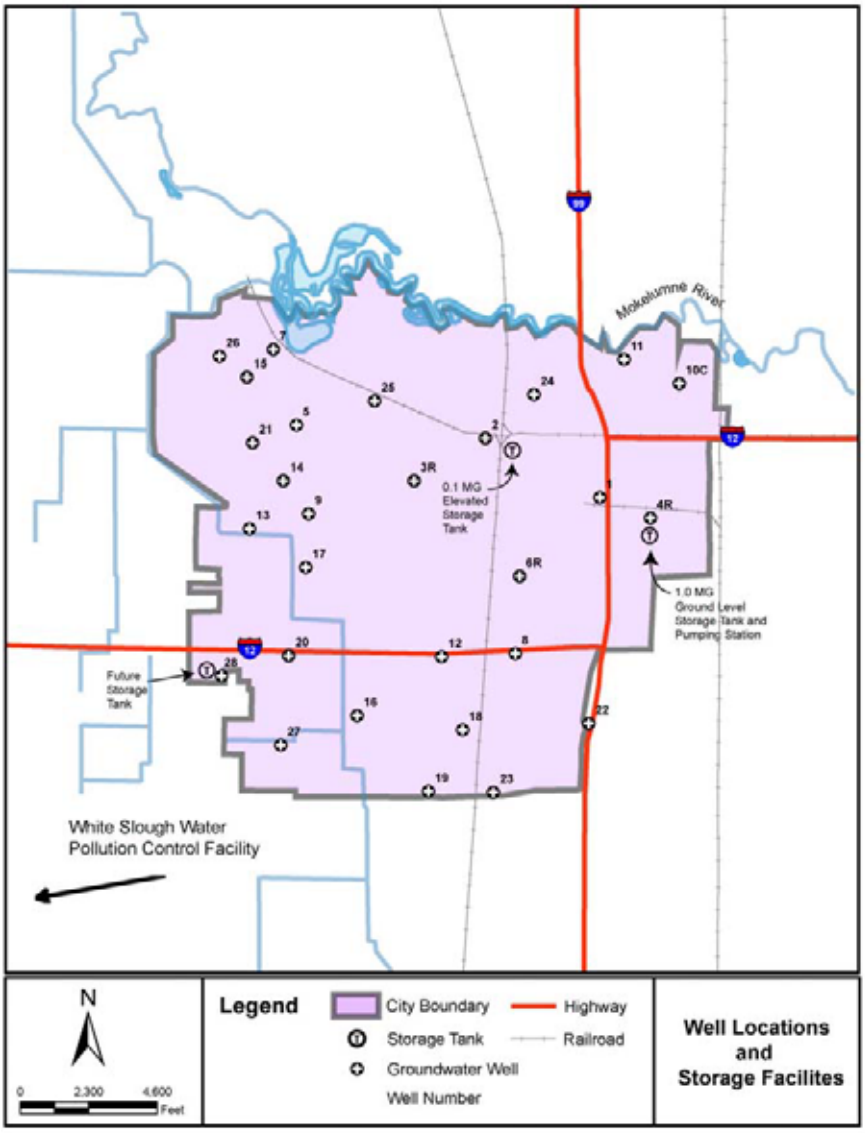


Source: City of Lodi Public Works Department

3.1.2 Water Supply Facilities

The Utility operates 26 groundwater production wells. The locations of the wells are presented in Figure 3-2 and discussed in further detail below.

FIGURE 3-2 WELL LOCATIONS AND STORAGE FACILITIES



3.1.3 Current Groundwater Supply

The 26 wells that currently provide water to the City have a combined capacity of 35,210 gallons per minute (gpm), or 50.7 million gallons per day (mgd). The wells operate automatically on water pressure demand and pump directly into the distribution system. All wells are equipped to provide emergency chlorination as needed. Historically, water has not required chlorination. Six wells are equipped with granular activated carbon (GAC) for the removal of dibromochloropropane (DBCP). Capacity information for the existing wells is summarized in Table 3-1.

TABLE 3-1: GROUNDWATER WELL CAPACITY

Well Number	Well Capacity, GPM[2]	Well Capacity, GPM[2]
1R	1,130	1.6
2	820	1.2
3R	820	1.2
4R[1]	1,960	2.8
5	1,180	1.7
6R	1,580	2.3
7	1,160	1.7
8	800	1.2
9	900	1.3
10C	1,300	1.9
11R	1,320	1.9
12	800	1.2
13	1,150	1.7
14	1,670	2.4
15	1,500	2.2
16[1]	1,110	1.6
17	1,800	2.6
18[1]	1,800	2.6
19	1,110	1.6
20[1]	2,070	3.0
21	2,050	3.0
22[1]	1,400	2.0
23[1]	1,410	2.0
24	1,420	2.0
25	1,580	2.3
26	1,370	2.0
TOTAL	**35,210**	**50.7**

1. *Wells equipped with GAC*
2. *gpm = gallons per minute*
3. *mgd = million gallons per day*

Table 3-2 presents the amounts of groundwater extracted by the City between 1970 and 2004.

Table 3-2: Historical Groundwater Production (Guidebook Table 5)[1]

Year	Groundwater Production, AF	Percent of Total Water Supply
1970	11,462	100%
1971	12,303	100%
1972	11,686	100%
1973	12,204	100%
1974	12,002	100%
1975	12,294	100%
1976	13,607	100%
1977	10,578	100%
1978	11,477	100%
1979	12,349	100%
1980	12,312	100%
1981	12,487	100%
1982	11,560	100%
1983	11,539	100%
1984	13,997	100%
1985	14,813	100%
1986	15,080	100%
1987	15,304	100%
1988	15,359	100%
1989	14,653	100%
1990	15,387	100%
1991	13,313	100%
1992	13,985	100%
1993	14,013	100%
1994	14,301	100%
1995	14,390	100%
1996	15,102	100%
1997	16,330	100%
1998	14,461	100%
1999	16,588	100%
2000	16,724	100%
2001	17,108	100%
2002	16,641	100%
2003	16,185	100%
2004	17,011	100%

1. *The term "Guidebook X" refers to the table in the Guidebook to Assist Water Suppliers in the Preparation of a 2005 Urban Water Management Plan by DWR.*

3.1.4 Current Surface Water Supply

In May 2003, the City entered into an agreement with Woodbridge Irrigation District (WID) to purchase 6,000 acre-feet per year (AFY) of surface water for a period of 40 years. However, at the time this UWMP was prepared, the City had not yet begun using water from this supply. A copy of the City's Agreement with WID is included in Appendix A.

3.1.5 Current Recycled Water Supply

The City's wastewater discharge permit requires an agronomic application rate. According to discussions with City staff, approximately 2,500 AFY of secondary treated recycled water is

currently used, primarily for irrigation in the area surrounding WSWPCF. This represents approximately 35 percent of the total treated wastewater produced at WSWPCF. The City discharges the non-irrigation water, treated to Title 22 tertiary standards, to the Delta. The Utility currently lacks the necessary infrastructure to distribute additional recycled water to more of its customers.

(For a more detailed discussion of the City's recycled water supply, as well as the processes by which it is treated, refer to Chapter 8).

3.1.6 Water Distribution System

The City of Lodi's distribution system consists of a 100,000 gallon elevated storage tank, a 1 million gallon (MG) storage facility and pumping station, and the piping system. The 1 MG storage tank, located east of Highway 99 on Thurman Street, stores groundwater from an onsite well to meet peak hour demands and fire flows. The 100,000 gallon elevated storage tank is located on North Main Street. The storage facilities and their capacities are presented in Table 3-3. Their locations are shown in Figure 3-2.

Table 3-3: Water Storage Facilities

Storage Facility	***Storage Volume, MG***
Elevated Storage Tank	*0.10*
Ground Level Storage Tank	*1.00*
Total	***1.10***

Distribution mains in the City's piping system range from 14 inches to 2 inches in diameter, and the entire distribution system consists of approximately 225 miles of pipe. The City is in the process of replacing the 2-inch and 3-inch diameter mains as well as other deficient pipes.

A summary of the City's current and planned water supplies is presented in Table 3-5.

3.2 FUTURE WATER SUPPLY

3.2.1 Constraints on Existing Supplies

The City's current water supply system is constrained by 1) the pumping capacity of its currently active wells, and 2) a longer-term reduction in supply due to the overdrafting currently taking place in the City's groundwater basin. Although the declining groundwater basin is a result of groundwater extraction by all groundwater pumpers in the area, including other cities, agriculture, private well owners, and the City itself, the City plans to reduce its groundwater pumping in the long term as part of what will have to be a regional effort to stabilize the groundwater basin. A copy of the GBA Groundwater Management Plan is included in Appendix F.

3.2.2 Future Groundwater Supply

The continuing decline of groundwater levels in the aquifer underlying the City means that the sustainable annual groundwater supply available to the City is something less than what is currently extracted. As a member agency of GBA, the City is participating in the development of policies and programs, including groundwater recharge and conjunctive use programs, intended to help eliminate the eastern San Joaquin County groundwater basin overdraft condition. Additionally, the City plans to reduce its overall groundwater pumping in the future. A safe yield of approximately 15,000 AFY (Treadwell and Rollo, 2005) has been estimated for the aquifer serving Lodi based on water balance calculations (see Appendix G) performed using data primarily from the Eastern San Joaquin Groundwater Management Plan (Appendix F). This safe yield estimate reflects an acreage-based relationship. Therefore, as the City's land area increases, the estimates safe yield of the underlying aquifer will likely increase. The safe yield estimate will be revisited in the 2010 UWMP update. [AMS1] For the purposes of this UWMP,

15,000 AFY has been assumed as the amount of groundwater available during all future (post-2005) years. Although rigorous scientific analyses have not been performed, the City projects that some recharge of the groundwater basin will occur as the amount of groundwater pumped annually decreases. This result, however, is contingent on the cooperative efforts of all groundwater users within the basin, including other cities, agriculture, and private well owners, to reduce groundwater extraction. The City does not expect development of cones of depression, significant changes in direction or amount of groundwater flow, changes in the movement or levels of contaminants, or changes in salinity and/or total dissolved solids (TDS) concentrations. The amount of groundwater that is projected to be pumped over the next 25 years is presented in Table 3-4.

Table 3-4: Projected Groundwater Pumping (Guidebook Table 7)

Year	2005	2010	2015	2020	2025	2030
Annual Volume, AF	17,300	15,000	15,000	15,000	15,000	15,000
Total Available Supply, %[1]	57%	52%	51%	50%	49%	48%

1. Refers to the total supplies shown in Table 3-5.

3.2.3 Future Surface Water Supply

As discussed in Section 3.1.4 in May 2003 the City entered into a 40-year agreement with WID for 6,000 AFY of surface water from the Mokelumne River. The diversion point has not yet been determined. The City is considering options for implementing this source before 2010. Therefore, 6,000 AFY of treated surface water is included in the supply projections presented in Table 3-5 below. The City is also considering the possibility of obtaining additional surface water supplies from WID; these supplies are not included in Table 3-5, however, as they are not yet considered "firm" supplies.

3.2.4 Future Recycled Water Supply

As discussed in Section 3.1.5, the City currently treats approximately 7,200 AFY of wastewater at WSWPCF, of which 2,500 AFY is recycled in the vicinity of WSWPCF. WSWPCF has adequate capacity to treat all wastewater flows to Title 22 standards. The City is in the process of developing a Recycled Water Master Plan (RWMP) that will outline additional distribution of this supply to the Utility's customers. For the purposes of this UWMP, all treated wastewater produced at WSWPCF has been treated as recycled water supply and is included in Table 3-5 below. The amount of recycled water available increases with time, because as the City's population increases, the amount of wastewater available for reclamation will also increase. For a more detailed discussion of recycled water supply projections, refer to Section 8.6.

Table 3-5: CURRENT AND PLANNED WATER SUPPLIES (Guidebook table 4)

Water Supply Source AFY	2005	2010	2015	2020	2025	2030
Groundwater	17,300	15,000	15,000	15,000	15,000	17,300
WID Surface Water	6,000	6,000	6,000	6,000	6,000	6,000
Recycled Water[1b], AFY	7,200	7,700	8,300	8,940	9,630	10,380
Totals[2], AFY	30,500	28,700	29,300	29,900	30,600	31,400

1. *Based on the amount of wastewater treated during 2004, according to City staff. Future recycled water supplies are extrapolated from the 2004 amount. Assumes that the permitted capacity of WSWPCF will be increased as necessary.*
2. *Rounded to nearest hundred.*

3.2.5 Planned Water Supply Projects

At the present time the City does not have approved plans for any additional water supply projects. The City has participated in the Mokelumne River Regional Water Storage and Conjunctive Use (MORE WATER) Feasibility Analysis. The MORE WATER project, if approved, would capture unappropriated flows from the Mokelumne River for storage and beneficial use.

3.3 EXCHANGE OR TRANSFER OPPORTUNITIES

The City does not currently have any approved plans to pursue exchange or transfer opportunities.

3.4 DESALINATED WATER

At the present time the City does not foresee any opportunities for the use of desalinated water, which includes ocean water, brackish ocean water, and brackish groundwater, as long-term supplies.

3.5 WHOLESALE SUPPLIES

Since surface water will be purchased from WID, WID is considered a wholesale water supplier by DWR. As such, the City has provided demand projections to WID for the next 25 years. Similarly, the City has received availability projections from WID for the same time period. These demand and availability projections are presented in Table 3.6 and Table 3-7 below. As discussed previously, the City has not yet begun to use this water supply. As stated in the City's contract with WID, any water not taken by the City during the first three years of the contract (May 2003 to May 2006) may be "banked" and delivered to the City in subsequent years, provided WID has sufficient water available. The banked supply may not exceed 18,000 AF. To date, over 16,000 AF of water has been banked. The City has not made any formal plans at this time to use any of its banked supply, in addition to the normal 6,000 AFY, for any of the years shown in the tables below. However, the projected supplies and demands shown below may increase if and when the City decides to use its banked supply. The magnitude and availability of banked supply to be delivered will be discussed with WID at an appropriate time(s) in the future.

Table 3-6: Demand Projections For Wholesale Supply

Wholesale Supply	***Projected Demand[1]***					
	2005[1]	***2010***	***2015***	***2020***	***2025***	***2030***
WID Surface Water, AFY	*0*	*6,000*	*6,000*	*6,000*	*6,000*	*6,000*

1. *Subject to change with WID and City approval. Although the City may take water deliveries in excess of 6,000 AFY from its "banked" supply, no formal plans to do so have been developed at this time.*

Table 3-7: Availability Projections From Wholesale Supplier

Wholesale Supply	***Projected Avaiability[1]***					
	2005[1]	***2010***	***2015***	***2020***	***2025***	***2030***
WID Surface Water[2], AFY	*0*	*6,000*	*6,000*	*6,000*	*6,000*	*6,000*

1. *Subject to change with WID and City approval. Although the City may take water deliveries in excess of 6,000 AFY from its "banked" supply, no formal plans to do so have been developed at this time.*
2. *Reliability of WID supply is indicated in the City's contract with WID in Appendix D.*

Wholesale supply reliability is presented in Chapter 6. Although changes in deliverable volumes of water for future hydrologic scenarios have not been formally predicted at this time, Chapter 6 presents the most restrictive possible cases for the future.

CHAPTER 4. WATER DEMAND

4.1 Past, Current, and Projected Water Demand

Water demand projections provide the basis for sizing and staging future water supply facilities. Water use and production records, combined with projections of population and urban development, provide the basis for estimating future water requirements. This chapter presents a summary of available demographic and water use data and the resulting projections of future water needs for the City.

4.1.1 Past and Current Water Demand

Records of historical water production were obtained from the City's Public Works Department. These data include both maximum day and annual water production. Water production is the volume of water measured at the source, which includes all water delivered to residential, commercial, and public authority connections, as well as unaccounted-for water.

Annual Water Production - Groundwater production from 1970 to 2004 is presented in Table 3-2. Total water production in 2004 was 17,011 acre-feet (AF). Water use by customer class can only be estimated, as most of the Utility's customers are not currently metered.

Maximum Day Demand - Daily demand fluctuates throughout the year, due primarily to seasonal climate changes. Water demands are significantly higher in the summer than the winter. System production facilities must be sized to meet the demand on the maximum day of the year, not just the average. Water systems are sized to meet the greater of 1) the maximum day demands plus fire flow, or 2) peak hour demand. Fire flow and peak hour demand are not addressed in this UWMP.

The average day and maximum day demands for years 1977 through 2004 are presented in Table 4-1. The maximum day demand in 2004 was 19,014 gpm, in comparison with the total well production capacity of 35,210 gpm. The ratio between average and maximum day demands provides a maximum day peaking factor that can be used to scale annual demand projections to maximum day levels. The average maximum day peaking factor from 1995 to 2004 is 1.91.

Table 4-1: Maximum Day Demand and Peaking Factors

	Annual Average			Maximum Day		
Year	**AFY**	**MGD**	**GPM**	**MGD**	**GPM**	**Peaking Factor[2]**
1977	10,578	9.44	6,556	19.28	13,389	2.04
1978	11,478	10.25	7,118	--[1]	--	--[1]
1979	12,349	11.02	7,653	22.50	15,625	2.02
1980	12,312	10.99	7,632	24.00	16,667	2.18
1981	12,487	11.15	7,743	22.34	15,514	2.00
1982	11,560	10.32	7,167	21.30	14,792	2.06
1983	11,539	10.30	7,153	21.67	15,049	2.10
1984	13,997	12.50	8,681	26.20	18,194	2.10
1985	14,814	13.22	9,181	--[1]	--	--[1]
1986	15,081	13.46	9,347	26.91	18,688	2.00
1987	15,305	13.66	9,486	27.00	18,750	1.98
1988	15,360	13.71	9,521	28.40	19,722	2.07
1989	14,654	13.08	9,083	28.50	19,792	2.18
1990	15,387	13.74	9,542	24.29	16,868	1.77
1991	13,313	11.88	8,250	21.55	14,965	1.81
1992	13,985	12.48	8,667	24.00	16,667	1.92
1993	14,013	12.51	8,688	24.10	16,736	1.93
1994	14,301	12.77	8,868	22.94	15,931	1.80
1995	14,390	12.85	8,924	24.64	17,111	1.92
1996	15,102	13.48	9,361	27.93	19,396	2.07
1997	16,330	14.58	10,125	28.68	19,917	1.97
1998	14,461	12.91	8,965	29.66	20,597	2.30
1999	16,587	14.81	10,285	28.32	19,667	1.91
2000	16,724	14.93	10,368	29.48	20,472	1.97
2001	17,108	15.27	10,606	30.10	20,903	1.97
2002	16,641	14.86	10,317	28.70	19,931	1.93
2003	16,185	14.45	10,034	26.68	18,530	1.85
2004	17,011	15.19	10,546	27.38	19,014	1.80
Average 1977 – 2004		**13.48**	**9,364**	**27.45**	**19,063**	**1.93**
Average 1995 - 2004		**14.94**	**10,374**	**28.62**	**19,873**	**1.91**

1. Data unavailable
2. Maximum day peaking factor = maximum day demand/annual average day demand

Source: City of Lodi Public Works Department

Unaccounted-for Water *- Unaccounted-for water use is unmetered water use, such as water use for fire protection and training, system and hydrant flushing, sewer cleaning, system leaks, and unauthorized connections. Unaccounted-for water can also result from meter inaccuracies. Since the City's system is not completely metered, data are unavailable for determining the percentage of unaccounted-for water. Unaccounted-for water is generally assumed to equal approximately 10% of total water production.*

Unit Water Use *- Recent historical unit water use, expressed as gallons per capita per day (gpcd), is shown in Table 4-2. These unit demands include commercial usage, industrial usage, and unaccounted-for water.*

Table 4-2: Recent Historical Unit Water Use

Year	Population	Unit Water Use[1]
1999	56,926	260
2000	57,763	258
2001	58,600	261
2002	59,431	250
2003	60,521	239
2004	61,325	248

1. Based on total municipal water production by City of Lodi staff.

4.1.2 Future Water Demand

Future water demands are estimated based on 1) a constant 1.5% annual increase in the City's demand, 2) a constant 1.5% annual increase in the number of service connections, 3) the assumption that the City will install and begin reading water meters at a rate of approximately 950 per year, starting in 2006 or 2007, and 4) the assumption that as existing service connections become metered they will exhibit slightly lower unit demand factors than existing service connections without meters. It has been assumed that a residential service connection will exhibit a demand reduction of approximately 15%[1] once billing has commenced at commodity rates. Demands were projected based on actual water use in 2004. These projections are shown in Table 4-5 and illustrated in Figure 4-1. By 2030, average annual water demands[2] are expected to have increased from current demands by approximately 20%, from about 19,800 AFY (17.7 mgd) in 2005 to 23,800 AFY (21.2 mgd) in 2030. Demand projections by water use sector are presented in Table 4-3.

The projections in Table 4-4 represent normal (average) conditions, as actual use varies based on a number of factors. For this reason, it can be expected that there will be variations in the City's future water usage. The values predicted in these tables have been used in this UWMP, as they are assumed to represent average conditions of water demand.

[1] *Based upon 1) information from the California Urban Water Council (CUWC, 2005) and 2) judgment from the City of Lodi staff*
[2] *Including 2,500 AFY currently being recycled in the vicinity of WSWPCF.*

Table 4-3: Past, Current, and Projected Water Use by Customer Class (Guidebook Table 12)[1]

Year	Customer Class	Unmetered Connections[5]	Unmetered Deliveries[6,7] AFY	Metered Connections[5,8]	Metered Deliveries[3,6,7] AFY	Total Number of connections	Total Municipal Deliveries[4] AFY
2001	SFR	15,410	10,071	0	0	15,410	10,071
	MFR	577	2,828	0	0	577	2,828
	Commercial/Institutional	310	569	950	1,744	1,260	2,313
	Industrial	0	0	53	1,632	53	1,632
	Landscape	8	73	21	191	29	264
	TOTAL[2]	**16,300**	**13,500**	**1,000**	**3,600**	**17,300**	**17,100**
2005	SFR	16,537	9,955	0	0	16,537	9,955
	MFR	639	2,882	0	0	639	2,882
	Commercial/Institutional	310	750	1,018	2,462	1,328	3,211
	Industrial	0	0	56	945	56	945
	Landscape	8	76	23	219	31	295
	TOTAL[2]	**17,500**	**13,700**	**1,100**	**3,600**	**18,600**	**17,300**
2010	SFR	13,205	7,949	4,610	2,775	17,815	10,725
	MFR	509	2,294	180	811	688	3,105
	Commercial/Institutional	249	602	1,182	2,858	1,431	3,459
	Industrial	0	0	60	1,018	60	1,018
	Landscape	0	-2	34	320	33	318
	TOTAL[2]	**14,000**	**10,800**	**6,100**	**7,800**	**20,000**	**18,600**
2015	SFR	8,730	5,255	10,462	6,298	19,192	11,554
	MFR	334	1,504	408	1,840	742	3,345
	Commercial/Institutional	159	348	1,382	3,343	1,541	3,727
	Industrial	0	0	65	1,094	65	1,094
	Landscape	0	0	36	345	36	345
	TOTAL[2]	**9,200**	**7,100**	**12,400**	**12,900**	**21,600**	**20,100**
2020	SFR	4,255	2,561	16,420	9,885	20,675	12,446
	MFR	158	715	640	2,888	799	3,603
	Commercial/Institutional	69	167	1,591	3,848	1,660	4,015
	Industrial	0	0	70	1,178	70	1,178
	Landscape	0	0	39	372	39	372
	TOTAL[2]	**4,500**	**3,400**	**18,800**	**18,200**	**23,200**	**21,600**
Year	**Customer Class**	**Unmetered Connections[5]**	**Unmetered Deliveries[6,7]**	**Metered Connections[5,8]**	**Metered Deliveries[3,6,7]**	**Total Number of connections**	**Total Municipal**

			AFY		AFY		Deliveries[4] AFY
2025	SFR	0	0	22,273	13,409	22,273	13,409
	MFR	0	0	861	3,884	861	3,884
	Commercial/Institutional	0	0	1,788	4,324	1,789	4,324
	Industrial	0	0	75	1,269	75	1,269
	Landscape	0	0	42	401	42	401
	TOTAL[2]	**0**	**0**	**25,000**	**23,300**	**25,000**	**23,300**
2030	SFR	0	0	23,994	14,445	23,994	14,445
	MFR	0	0	927	4,181	927	4,181
	Commercial/Institutional	0	0	1,927	4,659	1,927	4,659
	Industrial	0	0	81	1,371	81	1,371
	Landscape	0	0	45	428	45	428
	TOTAL[2]	**0**	**0**	**27,000**	**25,100**	**27,000**	**25,100**

1. *The term "Guidebook X" refers to the table in the Guidebook to Assist Water Suppliers in the Preparation of a 2005 Urban Water Management Plan by DWR.*
2. *Rounded to the nearest hundred.*
3. *Does not reflect demand reductions as a result of meter implementation. Refer to Table 4-5 for water savings as a result of meter implementation.*
4. *Does not include 2,500 AFY currently being recycled in the vicinity of WSWPCF.*
5. *Assumes 10 dwelling units per MFR connection.*
6. *Assumes 75% of total water deliveries go to SFR and MFR connections. This assumption is based on recent water usage statistics for the City, and is consistent with historical per capita water usage.*
7. *Assumes that the per-dwelling-unit demand factor for MFR connections is 75% of the unit demand factor for SFR connections.*
8. *Assumes that approximately 950 existing connections are retrofitted with meters every year between 2006 and 2025. The actual rate at which meters are installed/retrofitted may be greater.*

4.2 Sales to Other Agencies

At the present time, the City does not foresee any opportunities for sales to other agencies.

4.3 Other Demands

Other water uses and losses in the City's service area are presented in Table 4-4 below. The 2,500 AFY shown for recycled water includes the amount of water currently used to irrigate land in the vicinity of WSWPCF. Although the land is irrigated with non-potable secondary treated wastewater, the 2,500 AFY must be subtracted from the total amount of wastewater available to the City for reclamation and reuse in municipal applications. For the purposes of this UWMP, therefore, the 2,500 AFY is considered a demand.

Table 4-4: Additional Water Uses and Losses (Guidebook Table 12)

Water Use	2000	2005	2010	2015	2020	2025	2030
Recycled Water[1]	2,500	2,500	2,500	2,500	2,500	2,500	2,500
Unaccounted-for System Loss[2]	1,672	1,727	1,774	1,801	1,837	1,883	2,029
TOTAL	**4172**	**4227**	**4274**	**4301**	**4337**	**4383**	**4529**

1. *Reflects the amount of recycled water currently recycled in the vicinity of WSWPCF. Does not include 1 mgd promised by the City in a "will serve" letter to Northern California Power Agency, as the power plant that would utilize this water is only potential at this time.*
2. *Unaccounted-for system losses are generally assumed to be approximately 10 percent of total water production. Because water usage is measured at the City's wells, unaccounted-for water is "accounted for" in the City's total demand projections in Table 4-5 (i.e., it should not be added to the demands in Table 4-5).*

4.4 Total Demands

The City's total average annual demands are presented in Table 4-5 and Figure 4-1. For the purposes of this UWMP, only the projected future demands with conservation are considered in subsequent analyses. It should be noted that while Table 4-31 includes projections for municipal demands only, Table 4-5 includes a demand of 2,500 AFY for non-municipal recycling (refer to previous section).

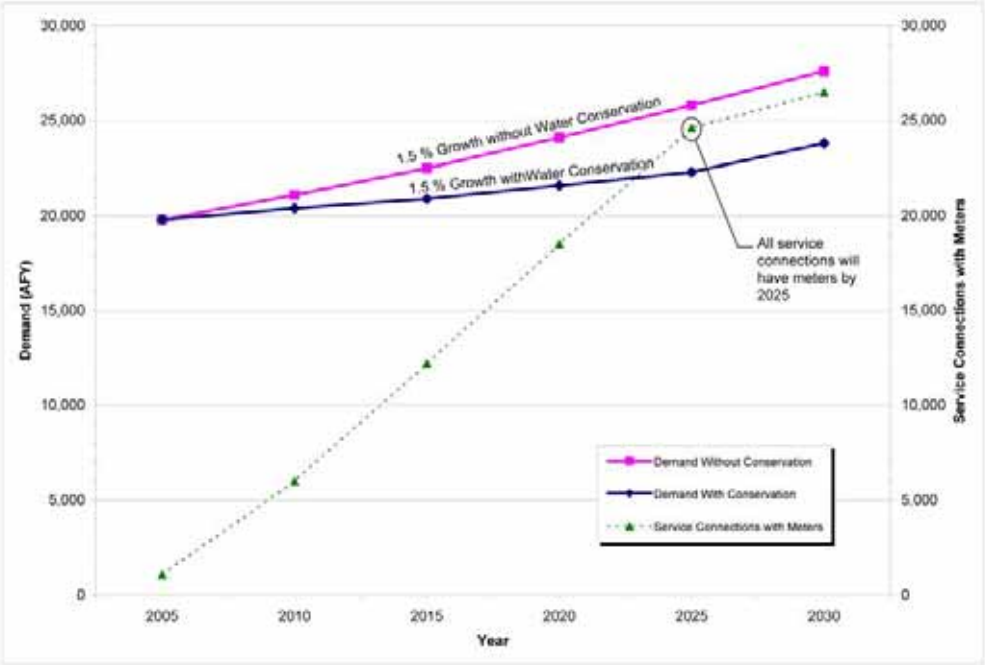
Table 4-5: Total Demands (Guidebook Table 15)

	Year	2005	2010	2015	2020	2025	2030
Demand AFY	Without Conservation[1]	19,800	21,100	22,500	24,100	25,800	27,600
	With Conservation[1,2]	19,800	20,400	20,900	21,600	22,300	23,800

1. *Includes 2,500 AFY of recycled water currently recycled in the vicinity of WSWPCF. Table 4-3 includes municipal demands only, and therefore does not match this table.*
2. *Assumes a 15 percent reduction in demand for metered residential service connections.*

.

FIGURE 4-1 PROJECTED WATER DEMAND



7. DRY YEARS SUPPLY

Excerpts below from the 2005 UWMP provide data outlined in Step 4 of the Guidelines for Implementation of SB 610 include pages 6-1 to 6-4 with sections entitled as follows:

Chapter 6 Water Supply Reliability

- 6.1 Climate
  - 6.1.1 Reliability and Vulnerability of Water Supply to Seasonal or Climatic Changes
- 6.2 Projected Normal Water Year Supply
- 6.3 Projected Single Dry Year Supply
- 6.4 Projected Multiple Dry Year Supply
  - 6.4.1 Minimum Supply Volumes for Next Three Years
  - 6.4.2 Basis for Normal, Single Dry and Multiple Dry Year Water Data
- 6.5 Supply Inconsistencies

CHAPTER 6 WATER SUPPLY RELIABILITY

This section provides a description of the potential variability in the City's water supplies caused by environmental, legal, and climatic factors, as well as the steps being taken by the City to address these potential concerns.

6.1 Climate

In California, climate can significantly affect the reliability of water supplies in certain regions. This section analyzes the vulnerability of the City's water supplies to climatic effects.

6.1.1 Reliability and Vulnerability of Water Supply to Seasonal or Climatic Changes

Groundwater *- Although the City's groundwater basin is replenished in part by the Mokelumne River, the annual quantity of groundwater available does not vary significantly due to seasonal or climatic changes. Additionally, seasonal or climatic changes are not expected to impair the City's ability to extract groundwater, as seven of the City's wells are equipped with emergency generators.*

Surface Water *- The reliability of the City's surface water supply may be affected by drought. The City's contract for surface water delivery from WID, which diverts water from the Mokelumne River, is subject to curtailments of up to fifty percent during dry years. WID is required by the contract to annually provide the City, on or about May 1, with a preliminary estimate of whether or not the City's deliveries will be curtailed in a given year. Final estimates of any curtailment in a given year must be provided to the City on or about July 1.*

Recycled Water *- The amount of recycled water available to the City comes primarily from indoor water use within the City's limits and is not expected to fluctuate significantly due to seasonal or climatic changes.*

6.2 Projected Normal Water Year Supply

During normal water years, no curtailments or other reductions in supply are expected for any of the City's supplies. The projected normal water year supplies from 2010 to 2030 are shown in Table 6-1.

Table 6-1: Water Supply Reliability (Guidebook Table 8)[1]

Water Year Type	Supply Type	2010	2015	2020	2025	2030
Normal	Groundwater, AFY	15,000	15,000	15,000	15,000	15,000
	Surface Water, AFY	6,000	6,000	6,000	6,000	6,000
	Recycled Water[2] , AFY	7,700	8,300	8,940	9,630	10,380
	TOTAL[3] , AFY	**4,274**	**4,301**	**4,337**	**4,383**	**4,529**

1. *The term "Guidebook X" refers to the table in the Guidebook to Assist Water Suppliers in the Preparation of a 2005 Urban Water Management Plan by DWR.*
2. *Extrapolated from the amount of wastewater treated in 2004. Assumes that the permitted capacity of WSWPCF will be increased as necessary.*
3. *Rounded to the nearest hundred*

6.3 Projected Single Dry Year Supply

During single dry water years, there may be up to a 10.5% reduction[3] in the City's normal combined water supplies, reflecting a 50-percent curtailment in the City's surface water supply by WID. No reductions are assumed for the City's recycled water or groundwater supplies. The projected single dry water year supplies from 2010 to 2030 are shown in Table 6-2.

6.4 Projected Multiple Dry Year Supply

Because the City's surface water supply is the only supply that is considered to be susceptible to dry water years, and because 50% is the maximum annual curtailment allowed under the City's contract with WID, supplies available during multiple dry water years are assumed to be no different than supplies available during single dry water years. The projected multiple dry water year supplies from 2010 to 2030 are shown in Table 6-2.

Table 6-2: Single Dry and Multiple Dry Water Year Supply Projections

Water Year Type	Supply Type	2010	2015	2020	2025	2030
Single Dry	Groundwater, AFY	15,000	15,000	15,000	15,000	15,000
	Surface Water, SFY	3,000	3,000	3,000	3,000	3,000
	Recycled Water[2] , AFY	7,700	8,300	8,940	9,630	10,380
	TOTAL[3] , AFY	**25,700**	**26,300**	**26,900**	**27,600**	**28400**
Multiple Dry	Groundwater, AFY	15,000	15,000	15,000	15,000	15,000
	Surface Water, SFY	3,000	3,000	3,000	3,000	3,000
	Recycled Water[2] , AFY	7,700	8,300	8,940	9,630	10,380
	TOTAL[3] , AFY	**25,700**	**26,300**	**26,900**	**27,600**	**28,400**
Summary	Single Dry Water Year, AFY	25,700	26,300	26,940	27,630	28,380
	Percent of Normal	**90%**	**90%**	**90%**	**90%**	**90%**
	Multiple Dry Water Year(s), AFY	25,700	26,300	26,940	27,630	28,380
	Percent of Normal	**90%**	**90%**	**90%**	**90%**	**90%**

1. *The term "Guidebook X" refers to the table in the Guidebook to Assist Water Suppliers in the Preparation of a 2005 Urban Water Management Plan by DWR.*
2. *Extrapolated from the amount of wastewater treated in 2004. Assumes that the permitted capacity of WSWPCF will be increased as necessary.*
3. *Rounded to the nearest hundred*

The future supply volumes presented in Sections 6.2 to 6.4 represent the water to which the City has the legal rights to use. This should not be confused with water that can readily be distributed to the Utility's customers, as additional infrastructure must be constructed before the total volumes presented in the tables above can be distributed to the City. In order to provide the City with surface water, for example, intake facilities, a surface water treatment plant, and additional distribution pipeline could be required.

6.4.1 Minimum Supply Volumes for the Next Three Years

Under agreements with the East Bay Municipal Utilities District (EBMUD), WID obtains water stored in Pardee and Comanche reservoirs. Since both of these reservoirs are currently full, supply volumes for the City of Lodi for the next three years are expected to be "normal." However, the minimum supply volumes for 2006 through 2008, or the supplies available if the City's contract with WID faced maximum curtailments, are presented in Table 6-3.

TABLE 6-3: MINIMUM SUPPLY VOLUMES FOR 2006-2008 (GUIDEBOOK TABLE 24)

Supply Type	2006	2007	2008
Groundwater, AFY	15,000	15,000	15,000
Surface Water, AFY	3,000	3,000	3,000
Recycled Water, AFY	7,200	7,300	7,400
TOTAL, AFY	**25,200**	**25,300**	**25,400**

Reflects the total amount of wastewater available to the City for reclamation and reuse

6.4.2 Basis for Normal, Single Dry, and Multiple Dry Year Water Data

The data presented in Sections 6.2 through 6.4 were developed based on 1) the assumptions that the City's groundwater and recycled water supplies are not susceptible to short term drought conditions, and 2) the City's contract with WID. Since the City's contract with WID is relatively new, there have

been no historical curtailments in the City's surface water supply upon which to base future dry water year projections. Hence, the maximum allowable curtailment has been assumed for these circumstances. The base year for all water year data is 2005.

TABLE 6-4: BASIS OF WATER YEAR DATA (GUIDEBOOK TABLE 9)

Water Year Type	***Base Year***
Normal	*2005*
Single Dry	*2005*
Multiple Dry	*2005*

6.5 Supply Inconsistencies

Water supply from the City's only wholesale supplier, WID, is susceptible primarily to drought conditions, when diversions from the Mokelumne River may be reduced by WID. Due to the infancy of this contract, there are no historical reductions upon which to base assumptions. Even in the most severe drought conditions, however, WID may only reduce the City's supply by 50%. Supply reliability projections for this source are presented in Table 3-7.

Water supply from the City's groundwater wells is considered to be very consistent. Historical fluctuations in groundwater levels due to changes in climatic conditions have been minor, and have not significantly impacted well production capacity. Additionally, six of the City's wells are equipped with granular activated carbon (GAC), and provide added insurance against inconsistencies caused by the presence of contaminants in the City's aquifer. Finally, the availability of seven emergency generators at various well locations ensures the City's ability to extract groundwater during extended power outages.

As discussed previously, the groundwater basin underlying the City is in overdraft, and groundwater levels are decreasing by approximately 0.39 ft/yr. From an extraction standpoint, however, this is a relatively slow process, and the City does not anticipate that overdrafting conditions will significantly impact its ability to extract groundwater in the short term. However, the City remains committed to eliminating the overdraft condition in the long term and has been an active participant in actions to accomplish this task. As a member of GBA, the City has participated in the development of regional groundwater recharge and conjunctive use programs intended to replenish Eastern San Joaquin County's groundwater basin and promote sustainability for the future. A copy of the GBA Groundwater Management Plan is included in Appendix F.

Recycled water supply for the City is considered to be very consistent. Indoor water consumption by the City's customers, which does not significantly fluctuate with climatic conditions like outdoor water use, is the source of the City's recycled water supply. As such, the amount of recycled water available to the City is not expected to fluctuate in the future; indeed, as the number of water and sewer connections increase, so too will the City's recycled water supply.

As a result of the relative consistency of the City's water supplies, there are no plans at this time to replace any of the City's supply sources with alternative sources. The City is part of a group of Eastern San Joaquin County water users negotiating a conjunctive use project with EBMUD. Recently, however, negotiations surrounding this project have stagnated. Although this project bears the possibility of increasing the City's future water supplies, for the purposes of this UWMP this potential supply is not reflected in Table 3-5.

D. DEMAND EFFECTS OF THE PROJECT

1. Background

From City records, the total water deliveries in 2004 were 17,011 AFY or 15.18 MGD and the population for the City was 61,325. The population growth rate has been estimated at 1.5% from 2004 to 2030. Also in 2004, water use per capita was 248 gpcd in comparison to 285 gpcd estimated in 1987. This is a city-wide average that includes commercial, industrial, and public water use.

The South Hutchins Annexation area consists of 28.73 acres of agricultural land. The existing water supply for the land within the Project area is primarily groundwater. The State of California has determined that the regional average on-farm unit applied water use for irrigation in the San Joaquin region is 3.2 acre feet per acre[1]. The current agricultural irrigation practice within the project area is either fallow or a drip system, so actual water use is significantly less than the county average.

[1]*California Department of Water Resources, California Water Plan Update 2005 Volume 3 – Regional Reports, Chapter 7, San Joaquin River Hydrologic Region at pp. 7-14*

2. Project Water Demand

TABLE 4: PROJECT DEMANDS BY LAND USE AND AREA

Land Use Type	Land Use Area[1] (Acres)	Unit Demand[2] (Gallons Per Acre Per Day)	Average Daily Demand (GPD)	Average Daily Demand (AFY)
Commercial (A-1)	12.20	2,750	33,550	37.6
Office (A-2)	14.00	2,750	38,500	43.1
Right of Way	2.53	-	-	-
TOTAL	**28.73**		**72,050**	**80.7**

1. Acres provided by Tentative Parcel Map for Hutchins Street Annexation Project
2. City of Lodi – Public Improvement Design Standards
Source: UWMP

3. Water Supply Considerations

The City has accepted 15,000 AF as the demand that the groundwater basin can serve without experiencing significant overdraft, based upon the City's current land area.

The 2005 UWMP states that as water meters are installed, it is expected that water use by those customers will decline by about 15% upon completion of the meter installation program. In addition, other conservation methods are being pursued by the City. For planning purposes, the reduction in annual demand of the existing customers will be approximately 2,500 AFY. Table 5 shows the projected population, unit demand, and projected deliveries in five-year increments, from 2005 through 2030.

TABLE 5: DEMAND PROJECTION USING 2004 AS THE BASE YEAR

Year	Population	Unit Demand GPCD	Total MGD	Deliveries AFY
2004	61,210	248	15.18	17,011
2010	65,940	244	16.09	18,030
2015	71,040	240	17.05	19,106
2020	76,530	236	18.06	20,240
2025	82,440	233	19.21	21,527
2030	88,810	230	20.43	22,890

Source: UWMP, 2005

The City has determined that 15,000 AF is the safe yield the groundwater basin can provide without experiencing significant overdraft, based on the City's current developed land area. In 2004, the developed area within the City totaled 7,875 acres. The South Hutchins Annexation will expand the developed size of the City by 28.73 acres, increasing its ability to draw on the basin as agricultural uses are disbanded and the City's total acreage is increased. Based on the expansion of the acreage within the incorporated City limits, the safe yield would increase by 55 acre-feet.

Increase safe yield = project area * safe yield/current area of the City
= 28.73 acres * 15,000 acre feet/ 7,875 acres
= 54.72 acre feet

With annexation, the City of Lodi's safe yield of the groundwater basin will increase to 15,055 acre-feet. Even though the current City needs exceeds this amount, the basin has not yet demonstrated significant degradation and is still able to meet the City's needs in the short term. Regardless, the proposed project would contribute to this overdraft.

With the firm supply of 21,000 AFY shown in the 2005 UWMP plus an additional 55 AFY from the expansion of the City, the total water supply of 21,055 will be more than sufficient for the addition of the Project. The following Table 6 illustrates the projected water supply for the City with the project.

TABLE 6: WATER BALANCE CALCULATION (ALL NUMBERS ARE IN AFY)

Existing Water Demand	17,011
Less Metered Reduction of 15% (per UWMP)	2,500
South Hutchins Annexation Water Demand	81
Vacant Land Water Demand	2,265
TOTAL WATER DEMAND	**16,857**
Available Groundwater Supply (with annexation)	15,055
Available Surface Water Supply	6,000
TOTAL WATER SUPPLY	**21,055**
Available Reserve*	4,198

* Total Water Supply less Total Water Demand

The water metering program and the establishment of a surface supply by the City will provide sufficient water to meet the projected needs of the City.

If development of vacant land is considered to occur over the planning period, the water supply for development of the vacant land would be included in the overall supply and demand calculations. As indicated in Table 4, demand would catch up to the supply by about 2022. The City would, therefore, need to plan to provide additional firm water supplies to serve growth beyond 2022.

4. Other Water Supply Considerations

The above scenarios are based on a static available supply, which is not practical for two reasons. First, as noted in the 2005 UWMP, the City has obtained additional surface water supplies from Woodbridge Irrigation District. Second, the calculation of safe yield for groundwater extraction suggested by the Eastern San Joaquin County Groundwater Banking Authority for the City's consideration of 15,000 AFY was calculated based upon an acreage-based relationship. Therefore, as the City's land area increases through annexations, the estimated safe yield of the aquifer will also increase. The per acre relationship safe-yield is approximately 1.90 acre feet per acre.

The current contract with WID for 6,000 AFY has carried over or banked the water not taken over the first three years of the agreement not to exceed 18,000 acre feet. When the WID surface water supplies and banked water are added to the groundwater supplies, water supplies will be available for the projected planning period of 2012 to 2030 and beyond.

The improvements to implement the use of the surface water are in the City's building permit process. While all routes to obtain new water sources need to be studied, they are not relevant to this Water Supply Assessment as the Contract with WID and plan to begin construction in 2011 provides a firm water supply that the City has committed to utilize and will be available to provide supplemental water to meet project and other future demands through 2030.

The City is not obligated to reduce the recommended 1.90 acre foot per acre but has voluntarily agreed to implement this reduction in the near term when its surface water supply is made available for use. The WID surface water supply and portions of the South Hutchins Annexation are scheduled to be in operation in 2012.

The City has developed a comprehensive approach to address the groundwater overdraft problem; the City's 2005 Urban Water Management Plan identifies the following five strategies that are being implemented to resolve this shortcoming:

a. Establishment of a Water Conversation Program — The City has already established a Water Conservation Ordinance and a Water Conservation Rebate program that have shown reductions in demand. Continued implementations of these programs will reduce the current overdraft condition and will eventually develop surplus capacity that could be used to meet the needs of the project.

b. Establishment of a Recycled Water System — The City has developed a water reuse program and is treating water for reuse at the wastewater treatment plant. Currently, this water is being distributed to area farmers, thereby reducing their groundwater and surface water demands and improving the overall regional water balance. Expansion of this program is being planned and the incorporation of recycled water for landscape areas and other acceptable uses will further reduce demand on the groundwater basin.

c. Development of Surface Water Treatment — The City has acquired an additional 6,000 AF of water rights from the Woodbridge Irrigation District. The City is planning to begin construction of the water treatment plant facility in 2011 to provide additional supply for the City consumers.

d. Development of Additional Water Wells — Wells provide an efficient means of providing for peak day and peak hour water demands by providing a distributed water source system. Adding additional wells do not necessarily increase ground water usage, especially if those wells are used primarily to meet peak day, peak hour or emergency water demands.

Phase I of the proposed project is anticipated to be developed before 2012, which is when the 6,000 AF of purchased water rights from WID is expected to be available for use. As described above, Phase I of the proposed project is projected to use 43.1 AF of water per year, and the entire South Hutchins Annexation is anticipated to require about 81 acre-feet (AF) of water annually.

After 2012, the additional water rights purchased from WID will reduce the City's draw on the groundwater basin to within safe yield levels, including the project's ultimate annual demand of 81 AF.

Effect of the South Hutchins Annexation

Based upon the planned land uses for the South Hutchins Annexation shown in Table 1, on page 1, the estimated project demand was calculated using Standard demand rates as outlined in the Water Distribution Systems Handbook, by Larry W. Mays, McGraw-Hill 2000. Expected demand increase for the project has been calculated as 81 acre-feet per year.

Currently, the South Hutchins Annexation would have little effect on the City's water supply system. As shown above, based on the population projection for the Project which includes commercial and industrial uses, the estimated Project demand would be an increase of less than 0.1% of the current water deliveries.

As previously stated, the City's supply provides a pumping capacity of 36,810 gpm or 53.0 MGD. It is recommended that, as in the 1987 Water Master Plan, 20% of the well capacity be considered out of service for repairs, maintenance, etc., at any one time. The capacity or supply from the wells would, therefore, be estimated to be 42.4 MGD or 47,500 AFY.

The safe yield for groundwater extraction suggested by the Northeastern San Joaquin County Groundwater Banking Authority (GBA) for the City's consideration, is 15,000 AFY or about 32% of the current pumping capacity of 47,500 AFY. Adding the South Hutchins Annexation demand to the 2005 demand, while including the vacant land demand over the planning period, results in a current demand of 15.05 MGD or 16,875 AFY. A review of Table 5 indicates that the available supply of 18.75 MGD or

21,000 AFY would approximately equal the demand in 2022.

E. Conclusions and Recommendations

The current water supply of the City of Lodi is consistent, reliable, and meets all EPA quality requirements. The quantity is adequate for the projected growth as presented in the 2005 UWMP.

Water supplies are available to serve the South Hutchins Annexation in accordance with the requirements included in SB 610. The total available supply of 21,024 AFY exceeds the projected demand of 16,857 AFY.

The South Hutchins Annexation should continue the City's strategy of using wells to meet peak flows and fire flow demands by constructing one well for each increase in population of 2,000 persons, which in this case would be two wells with a capacity of 1,600 gpm. Note that the wells are developed primarily to meet peak demands, not total supply. The addition of two wells does not alter the previously presented water supply calculations.

Surface water is available under the WID contract and will begin construction in 2011 by the City.

Continue the program to install water meters and to encourage water conservation.